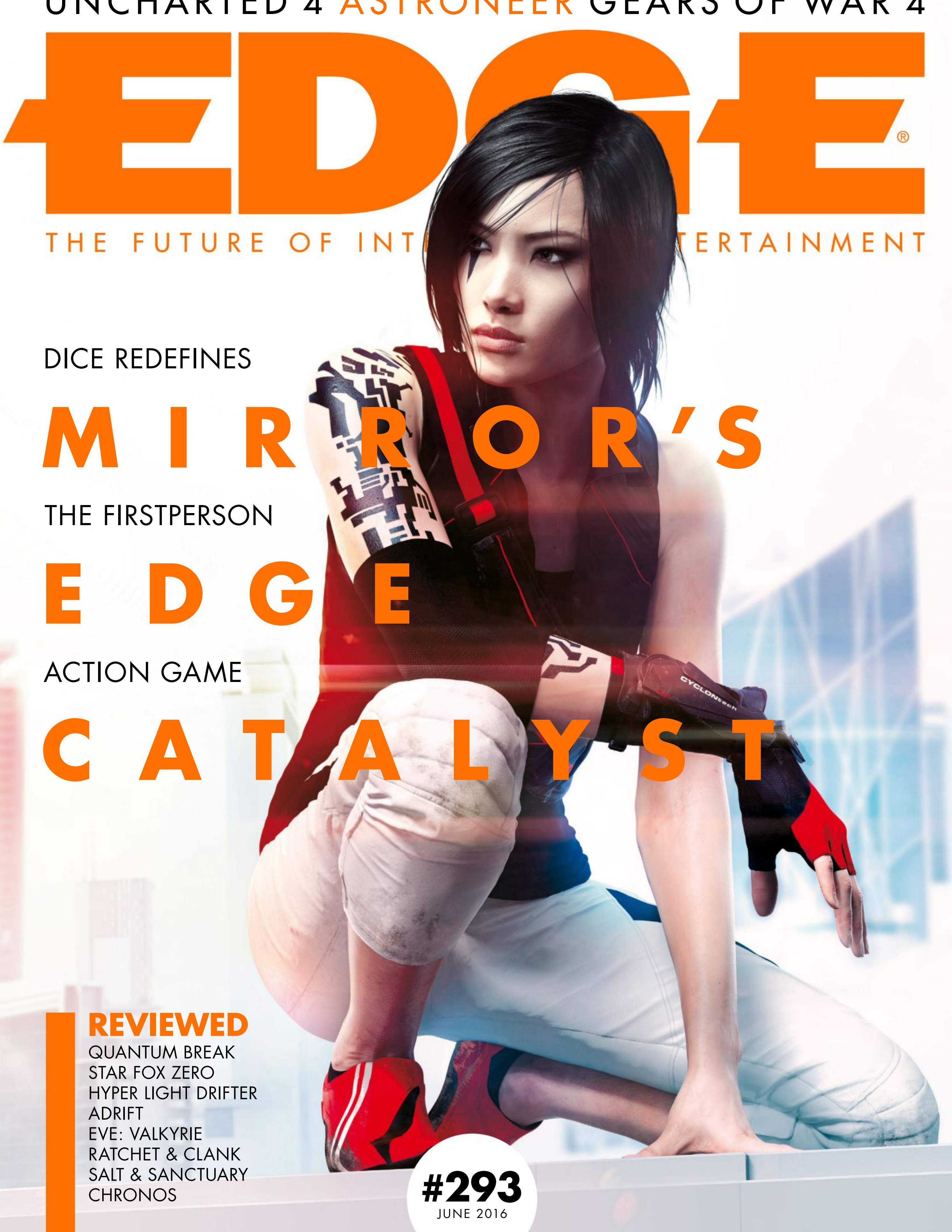
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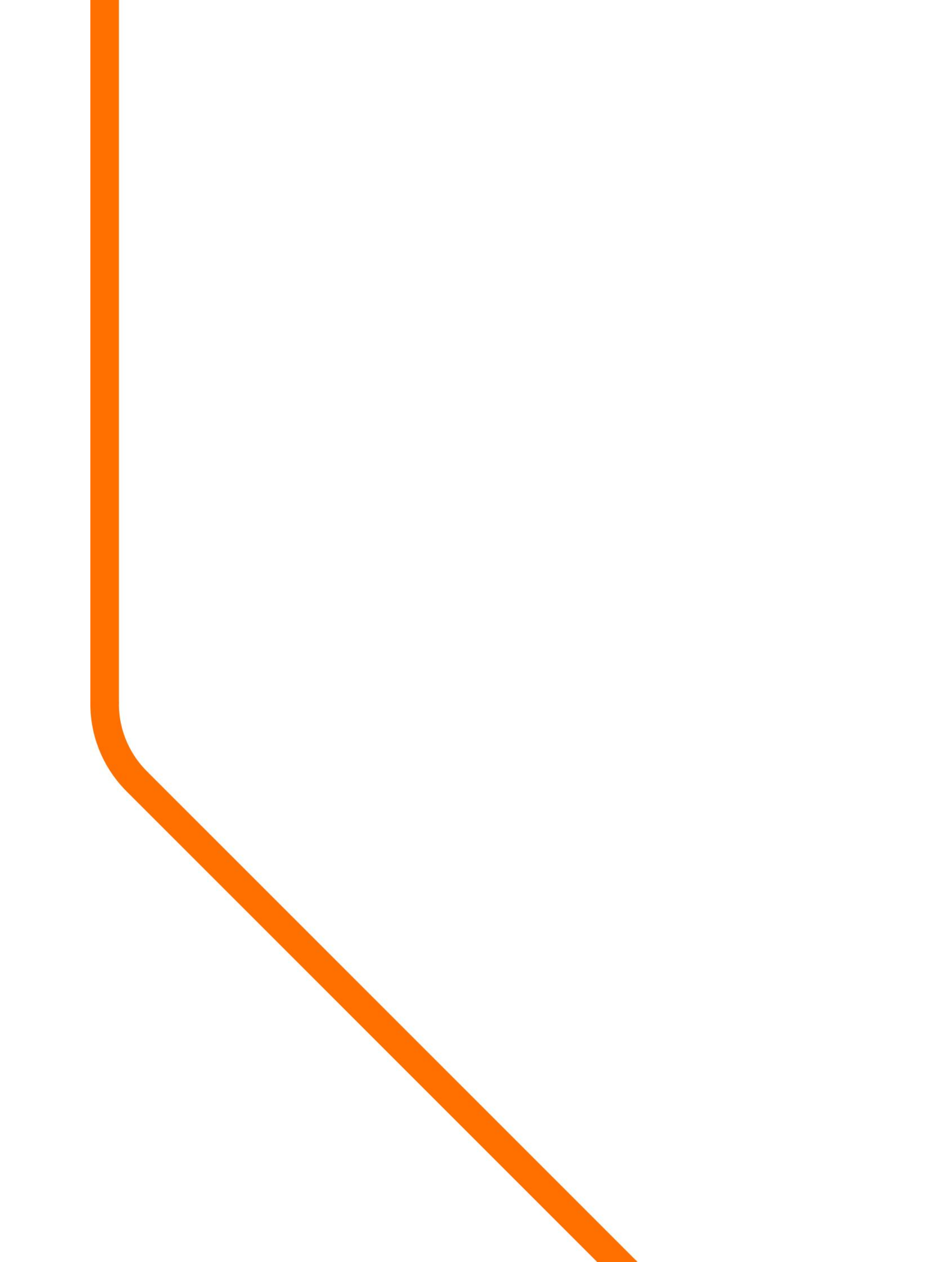
ACTION GAME

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HYPER LIGHT DRIFTER
ADRIFT
EVE: VALKYRIE
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CHRONOS

#293
JUNE 2016



Bothering Jeff Minter's sheep following a trip to Mute City

We've heard it so many times. Some of us may have even uttered the words ourselves: "This is great, but… imagine it in VR." Now that we've spent time immersed in VR with all sorts of games and other applications, and for extended periods rather than simply dabbling, the inappropriateness of the remark comes into grim focus. In compiling this issue's Play section, for the first time in history a game caused one of our review staff to actually vomit.

Videogames have long held the potential to mess with our bodies' delicate systems. This parish's own **James Leach** recalls a trip to see game designer Jeff Minter 25 years ago: "We went to his cottage in deepest Wales. We saw a variety of llama-related titles he was developing, and then he showed off his brand-new Super Famicom on a big TV. He had *F-Zero*, with its mighty Mode 7 3D effects, and after a few minutes of both watching and playing it, my face went extremely cold and I had to go into the garden, where there were three sheep. A pint of tea, mixed with a motorway breakfast and a Fry's Turkish Delight, was ejected over the fence. I recall not wanting his sheep to graze on the fresh vomit, which was thoughtful of me. On the way back we had to stop at the Severn Crossing services so that more spew could emerge. I did my best to avoid Mode 7 games after that. And lamb, for a while, too."

In a way, it all brings us back to what we were talking about in the intro of **E**291 – that we should be increasingly disinclined to expect that what works for one person will chime with another. Plenty of you will be able to make it through all of this issue's VR games without turning green, after all.

This month's cover game, *Mirror's Edge: Catalyst*, is precisely the sort of thing that would have once been naively held up as a made-to-order candidate for VR treatment. But, sensibly, it is being delivered in a context much less likely to turn the stomach, as a PC, PS4 and Xbox One action adventure played on an old-fashioned screen, with familiar controllers. Crucially, though, the team at DICE is putting in the effort to build upon the lustrous original in a series of innovative ways. Our report begins on p60.



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Specialist Magazine Of The Year



The magic Touch?

Oculus's VR vision has become a reality, but what does the forthcoming Touch controller mean for its future?

There's an established ritual to being demoed a Rift game, demanding passivity and obedience. Slip on the headset, then place the hands forward and pause – polite and isolated in darkness – ready for a gamepad to be placed in your grasp. This familiar procedure is already changing, though. The tweak is subtle, but open hands are no longer befitting to the ritual. Oculus Touch may not yet be available publicly, but developers have clearly embraced it. Those waiting hands must now be held flat, fingers tightly bunched, ready for the wrist strap of Palmer Luckey's hand controller to be slid into place. At GDC this year, it wasn't the case that Touch controllers represented a rising trend; rather, they were close to the norm.



Northway Games co-founders Colin and Sarah Northway

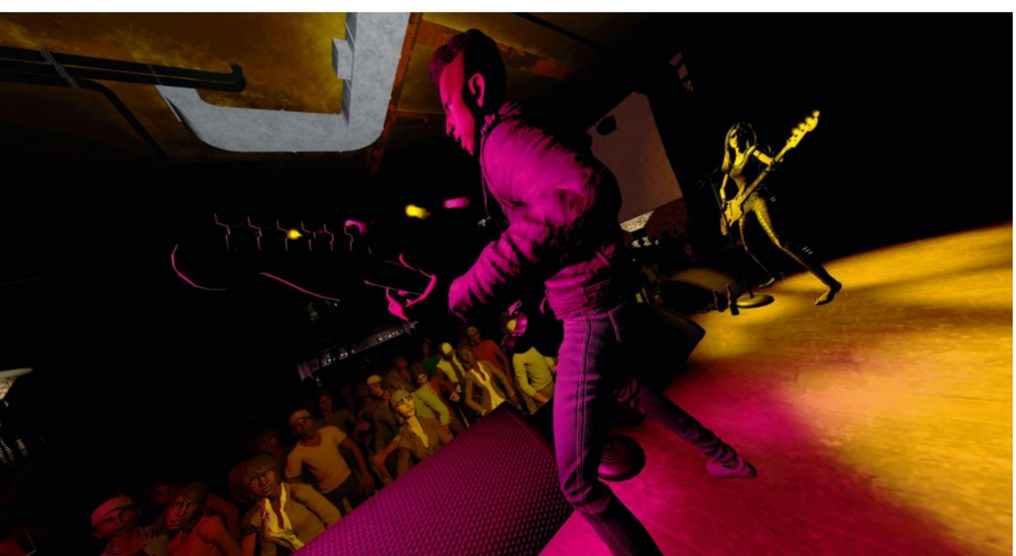
The reasons behind the shift are manifold, and the impact on the Rift experience is beguiling, whether being wowed by the intensity Touch controllers bring to Epic's *Bullet Train* FPS demo, or experiencing the tangibility they engender in Northway Games' construction-kit puzzler *Fantastic Contraption*.

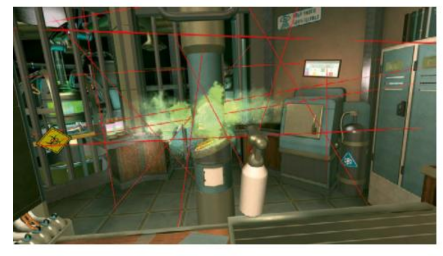
Virtual reality always needed a hand-tracking solution, of course, because without it users try to reach out and grab anyway, especially during formative VR experiences. That desire to grasp is an important one to VR's potential to immerse, and it plays on something defining in the human experience: the opposable thumb.

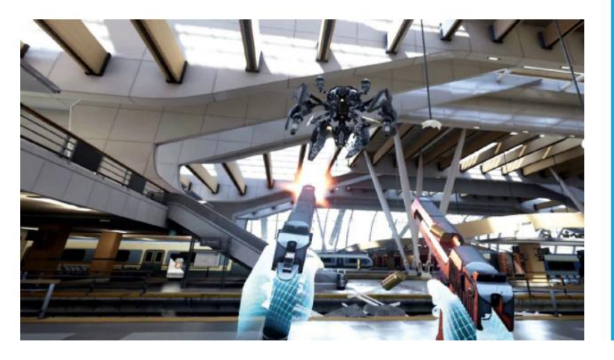
"After you start working with VR, it becomes really obvious why players want to reach out," explains Northway Games co-founder **Colin Northway**. "Our hands are the way we interact with the world. There's a giant part of the brain dedicated to moving our hands around, controlling things with our hands, using tools and picking things up. Our hands are a big part of what being a human being is. So when you add hands into the mix in VR, even without finger dexterity, it makes you interact with the space in a more normal way, and with less of a divorce from how you interact in the normal world."

If VR's trump card over traditional screen-based gaming is presence – that extremely powerful feeling that makes the virtual world feel like a reality – ▶

Northway Games' ***Fantastic Contraption*** **may have originally emerged back in 2008, but it feels fresh as a Vive/Touch title in 2016**







CLOWISE FROM ABOVE **Three Oculus Touch projects that illustrate the hardware's use in a variety of scenarios: Schell Games'** ***I Expect You To Die*****; Harmonix's** ***Rock Band VR*****; Epic's** ***Bullet Train*** **demo, which puts a new spin on** ***Time Crisis***

THE TOY OF THE BEHOLDER

Up close with Touch



Due for release later this year, the Touch hardware essentially merges the function and form of motion controllers and a traditional pad, breaking the latter in two so that each half can be used independently. Its constellation tracking reads hand movements with striking precision, using the same sensor that tracks the Rift user's head position. Traditional fascia buttons, thumbsticks and triggers, meanwhile, let players grab, press and select. "I don't think the question is about if there are going to be a lot more hand controller games and tools for VR," says Colin Northway. "It's about if there's going to be any *non*-hand-controlled games and tools."







FROM TOP **Jason Jerald, Nick Donaldson and Greg LoPiccolo**

then motion controllers such as Touch will be fundamental in establishing the medium. It's a concept that has been a talking point within the academic community for some time.

"As humans we have a visceral desire to reach out and interact with the world," says VR researcher **Jason Jerald**, echoing Northway's observations. "A relatively large portion of the sensory and motor cortex is devoted to the hands. Without our hands, we're confined to a largely passive experience of both the real world and virtual worlds, and acting with our hands enables us to feel like we're more part of the world."

The Touch controller's ability to make the VR experience feel more real is a powerful one, but what does it actually mean for gameplay? The simple answer is tangibility and immediacy. Played with Touch controllers, *Bullet Train* evokes the feel of *Time Crisis* and its lightgun ilk but plunges the form into a completely 3D world, where grabbing bullets from the air or crossing arms to fire two guns in opposite directions is equal parts instinctive and exciting. In *Rock Band VR*, meanwhile, a Touch controller clamped to a traditional *Rock Band* guitar controller allows you to take your plastic axe with you as you move from the physical realm to a virtual one, in the process rendering those air-guitar fantasies more convincing than ever before.

"In our case, the guitar is the channel through which the player impacts the world, so for us, having a virtual guitar as a bridge between the physical and virtual is incredibly powerful," says Harmonix creative lead **Greg LoPiccolo**. "It lets us fulfil players' fantasies about what it might be like to actually play onstage, but connected directly to their hands and motion in a way that's very intuitive and powerful. For instance, we can visually render the freestyle guitar solos with crazy visual pyrotechnics, but since the visuals are flying out of the controller the player is holding, it grounds the experience and makes it very real and evocative."

Implementing Oculus Touch in these ways has naturally come with its own set of challenges, and the experimental ideas being explored by developers





Full hand tracking is the ultimate goal in VR interaction, but for the time being Touch represents the most comprehensively featured controller. The tech won't be available to Rift owners until later in 2016, however

are indicative of the uncharted space they're moving into.

"We had to be careful to keep things simple in *Bullet Train*," says project lead designer **Nick Donaldson**. "To start with, we had slow-motion and teleport on two different Touch buttons, but people would find themselves touching different buttons. That wasn't quite right, so we made all the buttons teleport. We had to find a balance of complexity around Touch, and that was a very organic, natural process."

Thus far, the development community seems happy with the technical process of bringing Touch into games – LoPiccolo's assertion that it is "pretty straightforward" is entirely typical – but there's little sense that the traditional gamepad is in any danger of being replaced.

"The part of our brain that our hands use is really good at helping us use tools," says Northway Games co-founder **Sarah Northway**. "And something like an Xbox One controller is a really good tool for doing certain complex jobs."

But one area where Touch outstrips gamepads is in its potential for communication and expression. HTC's Vive controllers, and the Move controllers that are compatible with PlayStation VR, also extend the player's reach into a game environment, but the Touch solution offers a more instinctive interface. While the option to naturally extend your thumb or forefinger in a game may seem little more than a frivolous gimmick on paper, it's a remarkably powerful – and efficient – way to express yourself to other players. Why trawl through an emote menu when you can give two thumbs up to your fellow avatars? (It's no surprise that Facebook founder Mark Zuckerberg picks social VR as the most valuable avenue for Oculus Rift's future.) And the additional nuance of control this aspect encourages means developers can create puzzles and challenges that can distinguish between a fist and a prodding digit – one behind-closed-doors demo we tried at GDC had us working through the processes of turning door knobs, flicking light switches and punching through glass.

> It's no surprise that Mark Zuckerberg picks social VR as the most valuable avenue for Oculus Rift's future

As for the future Touch and its contemporaries are heralding, there's an awful lot to look forward to. **Sam Watts** of Tammeka Games has experimented with Touch control for the studio's futuristic racer, *Radial-G*, and while the system may never be the default for the game, he remains convinced that it has powerful potential.

"Oculus Touch and motion controls add a level of immersion that's not possible with a gamepad," he notes. "And Touch especially, for interactions that are hand-based – rather than, say, holding a weapon or tool – feels much more natural to use, allowing users to really feel connected to the virtual world. That's at a base level, but combined with tracking a standing or moving user in VR, then whole new genres emerge that haven't necessarily been prototyped or even designed yet." ■

Survival of the quickest

As high-profile closures hit hard, do the prospects of UK studios lie with their ability to change course?

The closures of two of the UK's most highly regarded studios has raised new questions about the region's ability to flourish in the ever-evolving videogame industry. If the Microsoft-owned Lionhead and Sony-owned Evolution can't find success on these shores in 2016, what does it mean for British companies that don't have the backing of multinational, platform-owning corporations?

In Bossa Studios, creator of *Surgeon Simulator* and the forthcoming *Worlds Adrift*, we find an optimistic, albeit realistic, perspective. "It's a great time here [in the UK], and then there are challenges," says **Henrique Olifiers**, the company's co-founder and 'gamer-in-chief'. "If you look at things like the tax breaks the UK industry received, there's some advantages we have now that we asked for over many years, and we finally got some help there. At the other end of the spectrum, there's less need to use middlemen and publishers, and that's great. But then the market out there today is very noisy, with a lot of competition. So it's hard, but it's also a time when it's easier to do whatever you want."

Steam's explosion continues, alongside an unrelenting tide of mobile releases, while console gaming grows increasingly accessible for developers. Meanwhile VR and AR stand as rising opportunities for devs, while games continue to have commercial roles outside of entertainment. But so broad are the opportunities, and so numerous are those embracing them, that the real challenge is knowing where to place bets when the leading platforms and markets are so overcrowded. Placing all of your chips on a modest range of IPs, genres or technologies is a risky strategy, as illustrated by the closure of Lionhead and Evolution, two studios with extremely narrow areas of interest.







FROM TOP **Bossa's Henrique Olifiers, Rebellion's Jason Kingsley, and Bossa's Imre Jele**

"I think it's a tough time for anyone in a large studio that's 100 per cent reliant upon one IP to survive," says **Debbie Bestwick**, CEO of Team17, the UK company that was founded in 1990 and has evolved its publishing ambitions in recent years, supporting a roster of up-and-coming indie teams, including Playtonic, whose *Yooka-Laylee* it will publish this year.

"It's high-risk, hence why we're seeing the closures that we are," Bestwick says. "When you hear crazy stories of game X or Y needing to sell five or ten million copies to break even, that's an insane situation to be in."

> "I think it's a tough time for anyone in a large studio that is 100 per cent reliant upon one IP to survive"

Bestwick notes that studio overheads – often adding up to 50 per cent beyond the base cost of a game's actual development budget – borne by some firstparty studios and large publisher-owned operations make it tough to embrace the experimental spirit that has resulted in so much success within games in recent years. Olifiers recognises the increasing need for flexibility. "We're in an industry of transition," he says. "It always is in the games industry. Every couple of years you might need to reboot your whole thing as a studio. Maybe that's a problem for some. Perhaps some have been set in their ways for too long."

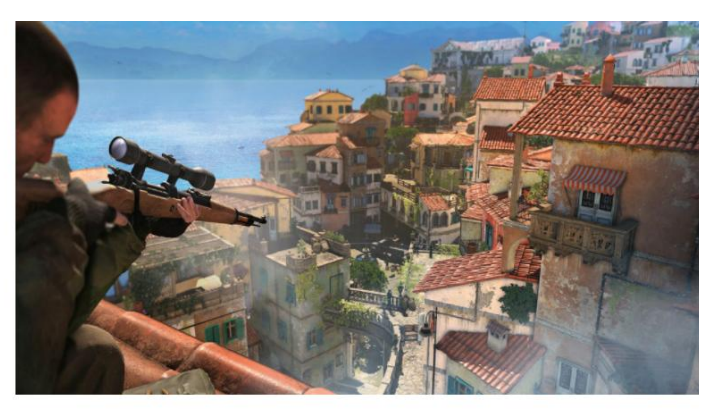
The ability to adapt has defined Bossa's success. Since its formation, the studio has worked on small mobile games, technologically ambitious VR projects, and jam-made curios that have defined the Let's Play movement, along with countless concepts that never made it beyond the drawing board. Bossa's approach – begin with a diverse range of creatively interesting ideas, then look at if they can be successful, and if the prospects look uncertain, let go – has given it the flexibility to flourish while other companies, manacled to single concepts and defined by them, have struggled.

"It's Darwinian," Olifiers says. "You have to be prepared to evolve to survive. There's a place for specialised studios, of course, but specialising too much today can prove extremely difficult. There's limited space for those who can't change."

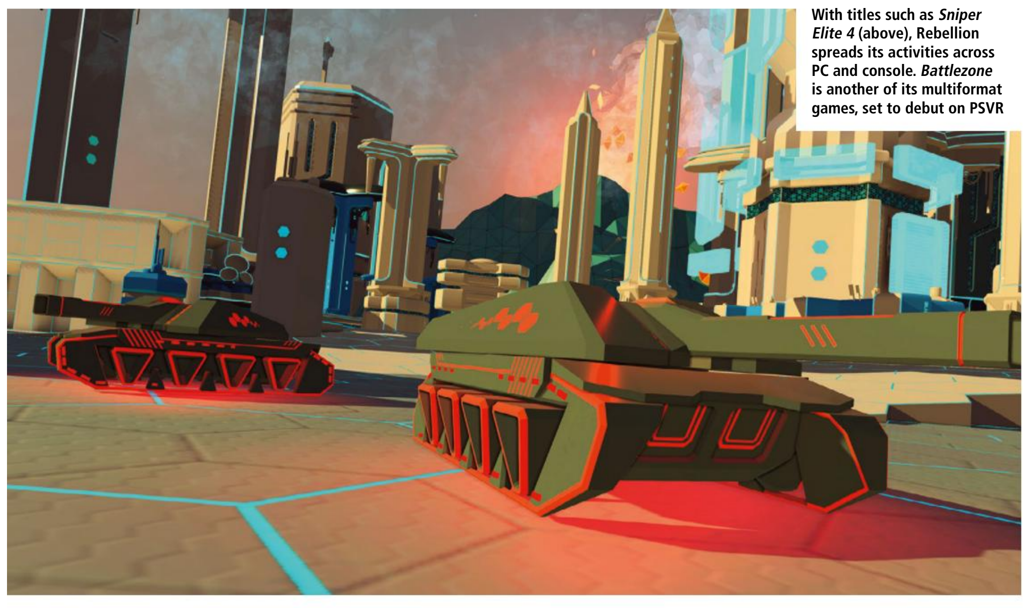
But then that's easier said than done – a fact Bossa knows well. "Things just go badly sometimes," says **Imre Jele**, the studio's co-founder and creator-in-chief. "And sometimes it can be hard to pivot the direction of the studio, either because it's not in the nature of the people that run a studio to make that choice, or because the company is locked into a contract, limited by its owner or something. The game industry is in constant change, so we have to be ready to change, too. Some companies in certain situations – whether it's their fault or somebody ▶



Bossa's diverse approach means it's as happy on touchscreen devices as it is PCs, with a roster including *I Am Bread*, *Surgeon Simulator* and the forthcoming *Worlds Adrift* (above)



With titles such as *Sniper Elite 4* (above), Rebellion spreads its activities across PC and console. *Battlezone* is another of its multiformat games, set to debut on PSVR



Team17, which got its start during the Amiga era, counts the high-profile *Yooka-Laylee*, from the creators of *Banjo-Kazooie*, among its lineup



A SMALL SOLUTION

How one indie is facing the challenge of diversification



Keeping a studio small in size can make it much easier to be flexible, and it's given people such as **Aj Grand-Scrutton** (above) the opportunity to take a view of the challenges facing today's developers. As CEO of Dlala, he's already worked in a variety of environments, on contrasting projects, while the company thrives as it approaches its fourth birthday. Dlala partnered with Team17 to release party game *Overruled*; before then, it had gone it alone, and experimented for a time operating within Microsoft's Lift London. Subsequently the team has worked on government-training game projects, and it continues to work on its own titles. "I think the single biggest mistake anyone running a studio makes is basing the company's future on projections," Grand-Scrutton says. In three to five years, he points out, the game development landscape can change considerably. "My rule is I don't base our studio on invisible money. I make sure we have the deals we need to keep the studio running and the contracts are sorted so if it gets killed randomly, it doesn't give us only three months to survive."

BY THE NUMBERS
As the organisations that monitor the health of UK game development have changed over the past ten years, so has the shape of the data they produce. It makes consistent comparison of the UK scene over time testing for even the most devoted analysts, but there's enough to go on to get a sense of the direction in which the region is moving.

In 2005, now-defunct trade body ELSPA reported that 22,190 people worked in games within the UK, some 6,000 of those at studios. At the time that represented a year-on-year climb overall, but a fall in numbers actually making games. Some ten years later, the trade body had become UKIE, which, working with innovation charity NESTA, found 1,902 game companies in the UK in 2014 – an increase of 22 per cent over two years, and a figure that, considering studio sizes, suggests a parallel increase in headcount.

UK industry body TIGA, meanwhile, found in its own research that across 2013/14 closure rates fell by 30 per cent, while throughout 2014 industry headcount climbed some ten per cent across the UK. For 2016's numbers to be pooled and published, the wait will go a good way into 2017, but this year follows consistent growth in terms of the numbers of people and companies making games in the UK, against an uncertain economic backdrop.

else's – can't adapt to changes, and that can be the end of them."

Looking at Sony's official statement concerning Evolution's closure, it's clear that platform holders themselves have to be equally agile, which comes with a cost. When huge global videogame companies adapt in order to survive, it can result in entire studios falling, putting immense pressure on individual livelihoods. "Regular reviews take place throughout SCE Worldwide Studios, ensuring that the resources that we have in such a competitive landscape can create and produce high-quality, innovative and commercially viable projects," the statement reads. "As part of this process we have reviewed and assessed all current projects and plans for the short and medium term and have decided to make some changes to the European studios structure."

If Sony is demonstrating the increasingly important ability to change course, then Evolution's staff are victims of a global machination rather than a UK-specific downturn. Writing on the official Xbox blog, Hanno Lemke, GM of Microsoft Studios Europe, revealed a similar story concerning Lionhead's closure: "These changes are taking effect as Microsoft Studios continues to focus its investment and development on the games and franchises that fans find most exciting and want to play." The logic behind the closures isn't tied to the UK, then, but rather the entire state of the videogame market.

In the midst of significant upheaval within the British game development scene, we can still find well-established studios that continue to succeed without shifting their ethos in order to follow trends. Oxford's Rebellion is one of the most famous. Founded in 1992, the company deploys over 180 staff across two UK teams, maintaining its output of console and PC titles, usually within the realms of sci-fi, military and fantasy genres, sometimes calling on the jewel in its IP crown, the 2000AD library, which it has owned for 16 years.

Yet despite all of those constants – and the company's size – Rebellion points to agility, diversity and experimentalism as reasons behind its success nearly a quarter of a century on. "I don't think it's that much of a secret, really," says CEO and creative director **Jason Kingsley** of his studio's lasting success. "Chris [Kingsley, studio co-founder] and I just love making stuff we're interested in, whether that's buying 2000AD because we read the comic as kids, or creating the *Sniper Elite* games because we love our history.

"I suppose if I was looking at it from the outside, you can see we've been at our best when we've been forced to think on our feet. I definitely see parallels between our early years, fighting to deliver *Alien Vs Predator* and doing things we'd never done before, and now, when we're self-publishing multiple games and learning to thrive with all these new challenges."

Kingsley says that talented, experienced staff, a diverse IP catalogue, and a suite of internal development technology also help, allowing Rebellion to react quickly to opportunities. As for what the Lionhead and Evolution closures mean for the UK dev scene, he's not of the belief that it paints a picture of a region in decline, and agrees that it's part of a broader trend.

"I'm probably not alone in saying that all of these closures and layoffs were an unwelcome surprise, but I don't believe they represent the health of UK game development," he says. "These events all reflect business decisions made by multinational companies rather than the abilities of the UK developers caught in the middle. It's a blow, for sure, but as for the wider development scene I think it's very healthy."



DriveClub **will live on as a PSVR title, but its core dev team is now focused on a new racing project**

"These events all reflect business decisions rather than the abilities of the UK devs caught in the middle"

For Bestwick, there's confidence about the future of UK studios and a prediction that the situation is set to improve rather than worsen. "I'm incredibly positive," she says. "Team17 is having the best time in 25 years, as are a number of other [UK] businesses, such as Rebellion, Frontier and Sumo. Then we have success stories including Facepunch, Ndemic and Chucklefish – all these guys have sold multimillion-unit games, and they're all based here in the UK."

"With the support of organisations like BAFTA Games, UKIE, The London Games Fund, even the Wellcome Trust, there is such a strong network around UK studios," adds an equally optimistic Jele. "And now university courses here are really strong. It's getting really exciting, and as long as you're always looking at the next areas that could be big, I think starting a games company in the UK today is a very clever idea."

With the *Fable Legends* project now officially shut down, Lionhead's talented staff will disperse in all sorts of directions, some possibly even setting up studios of their own. For Evolution, however, the story has taken a positive turn with the announcement that another UK industry stalwart, Codemasters, is stepping in to employ the core *DriveClub* team.

"We want to benefit from everything that they've learned as a team together," Codemasters CEO **Frank Sagnier** told GamesIndustry. "The whole point is to keep their DNA and build a new game." On Sony's decision to close Evolution, Sagnier forecasts only a positive outcome: "In terms of why these big businesses make these decisions, there are many different reasons for that. It's often an opportunity for new startups. But this is a great thing for the UK industry, that we're able to build this racing powerhouse – a UK studio that's hopefully going to be the world number one in racing." ■


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Funny games

How a new videogame panel show is trying to kickstart an enlightened age of TV gaming

Videogame-triggered outbursts on mainstream TV arguably peaked back in the '90s with Dave Perry's infamous GamesMaster hissy fit. But comedy duo **Steve McNeil** and **Sam Pamphilon** are determined to top his stroppy effort with Go 8-Bit, a TV version (commissioned by UK channel Dave) of their Edinburgh live show in which inebriated comedians play games against each other. The live show was originally developed in 2013 while the pair were working on a sitcom together.

"We had this other idea for a show where we got comedians drunk and got them to be rude to each other while they played *Mario Kart*," McNeil tells us. "We figured we could probably charge drunken Scottish people £10 to watch that, so we just did it for fun. And then it became far more successful than any of the jokes we'd been writing for the past five years, so we kept doing it!"

Though the pair call its early iteration an "unbroadcastable, base, drunken mess", the TV show, which has been two-and-a-half years in the making, retains the spirit of the Fringe experience. McNeil and Pamphilon retain their team captain roles, with fellow comedian Dara Ó Briain joining the lineup as host, and it still pits guest comedians against each other on a variety of games. But the live show's forfeits, which saw losing teams drink horrendous savoury cocktails or play *Snake* with a real 14-foot python draped over them, have gone in favour of a greater focus on the games themselves.

Each hour-long episode is split into five rounds across four parts. "The first part is a classic game that your mum's heard of, like *Pac-Man* or *Space Invaders*," McNeil explains. "In part two we let all the guest comedians pick their favourite game and do two mini challenges on that. In part three we do a modern title, so maybe something on the Rift or an indie title like *Gang Beasts*. Then in part four we're creating a physicalisation of a classic videogame that in some way enhances and grows it. That might be new ways to use controls where the entire audience play each other at *Pong* or *Track & Field*, but we're also talking about physical versions of games that we can somehow control using videogame tech. [Dave is] letting us get away with it, so it seems silly not to waste all their money on some shenanigans."

> "We got comedians drunk and got them to be rude to each other while they played Mario Kart"

Broadcasters have had a difficult time with games, struggling to represent them in a way that works within established TV formats without alienating broader audiences, or turning players off by being patronising. It's a difficult balance to strike.

"We've been talking about this a lot," McNail says. "It was surprising to see the amount of coverage [the show's] got and the amount of conversation that's been going on about it. And it's taken us years to get any sort of videogame thing on a large channel. Telly is funny: we came from comedy, and maybe five years ago the received wisdom was that sitcoms were single-camera things shot without an audience – things like The Office – and that studio sitcoms were rubbish 1970s things. And then Miranda was incredible and all of a sudden it became the received wisdom that studio sitcoms were funny and actually single-camera stuff wasn't the way to do it any more.





"I think what we hope is that if we get this right, rather than the received wisdom being that you can't put games on telly because it's not fun to watch other people do a thing, all of sudden everybody will want to make their own videogaming show – and obviously that will be a wonderful thing because with Twitch, Youtube etc and all of the people putting their stuff online and drawing in massive audiences and making far more money than anyone on telly, we know that people want to see this."

"Telly does want that audience," Pamphilon says, "and it does recognise the scale of the gaming community. But if you're a commissioning editor just trying to pay for your house in Kent, you've got to be pretty brave to put your neck on the line if nobody else has had the balls. So we'd best not screw it up."

Despite the territory being delicate, McNeil and Pamphilon thankfully have no intention of playing it safe with Go 8-Bit. "In this show we're not going to be afraid to talk about games, and we're not going to apologise for it," Pamphilon says. "The show will be competitive, it will have comedians in it – ones that we really like and know are going to be really funny – and so the topic almost doesn't matter. Except it does matter because it's a topic we feel very strongly about, so we don't need to worry about how niche it can get. I mean, we're probably not going get into a 30-minute conversation about *Shenmue* because that would probably alienate… well, nearly everybody. But topics are interesting if they're discussed by interesting people, so I don't think it's going to be a problem." ■

McNeil (left) and Pamphilon have been working together for seven years. Visit mcneilandpamphilon.com to see clips of them in action



Go 8-Bit's stage version (pictured) will return in the future, but the TV show is the focus for the time being, with Dave scheduling it to air in the autumn



MASSIVELY MULTIPLAYER

There's innovative technology to go with the laughs



McNeil and Pamphilon also host a spinoff stage show called Wi-Fi Wars in which entire audiences compete against each other, and the tech behind it will feature in Go 8-Bit. Pamphilon explains: "Everything took a bit of a turn when someone we knew for a while – a guy called Rob Sedgebeer, whose other half was actually one of the few fans of our double act…" "*The* fan, you might say," McNeil interjects. "Hello, Carol!" Pamphilon: "Rob came to us with this idea for some technology that could beam the games into your phone, so that you can play them on the big screen with us. That lifted the show to a different level."



MAKE IT SEW

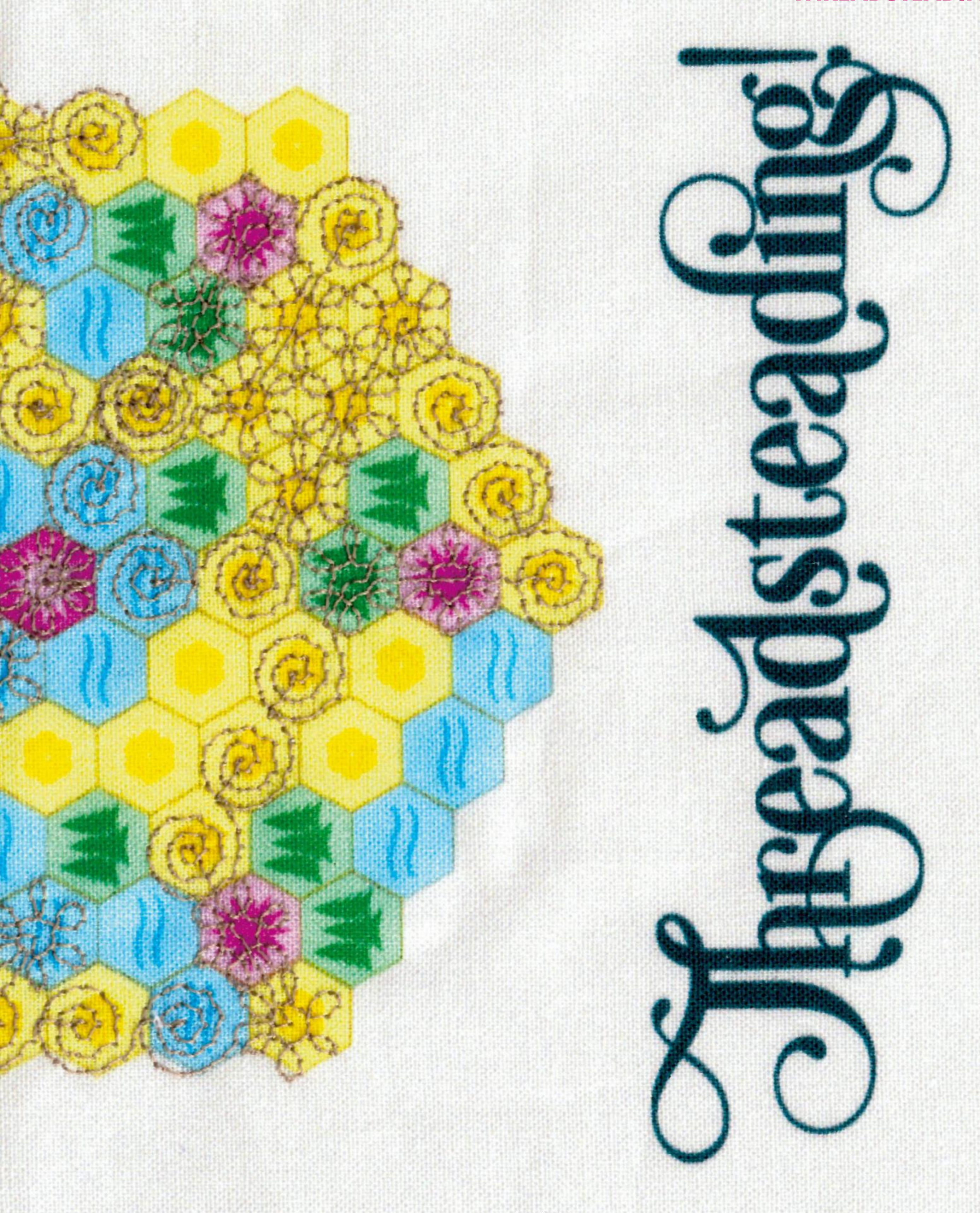
The academics teaming up with Disney's R&D aim to find the game in quilting

The sewing-machine version of quilting game *Threadsteading* is, to an extent, the title's 'handheld' port. After all, the original version was created for a rather less portable contraption – a 13ft-wide quilting machine, housed in the textiles lab at Disney Research in Pittsburg, Pennsylvania.

Threadsteading itself bears loose comparison with area-control tabletop games, but here the 'board' is a piece of fabric, upon which two players – using a control panel hacked into the guts of a sewing machine via an Arduino – sew their gameplay progress into place. The winner doesn't just walk away victorious – they also get to keep the quilt they created, which must be replaced with a fresh fabric panel for the next game.

The project came about after **Gillian Smith**, an assistant professor in Game Design and Computer Science at Northeastern University, met Lea Albaugh, research associate at Disney Research, at 2015's Different Games Conference. They started by assembling a team of academics and researchers around them with a shared interest in craft and game design. Come the summer of that same year, the pair pulled their collaborators together for a week of game jamming to see how they could best harness their 13ft giant as an entertainment platform."We wanted to create an interactive experience that would show how we can use these machines in new and interesting ways," Smith explains. "I'm fascinated by how using different kinds of controllers and materials can prompt us to create new kinds of games."

While *Threadsteading*'s platform is striking, its most interesting feature is the way in which its gameplay mechanics are inspired by the rules and practicalities of quilt making. Playing well engenders – to a degree – producing an aesthetically consistent, authentic quilt; a spin on consumer as creator possibly unique to games today. ■


Threadsteading!

Soundbytes

Game commentary in snack-sized mouthfuls



AP/Press Association Images

"There was no taxpayer money involved, and I take full responsibility. I'm going to pay everything back… with interest."

California Republican **Duncan Hunter**, who 'accidentally' spent $1,300 of campaign funding on Steam. Look, we've all done it



AP/Press Association Images

"What the fuck is Pokémon?"

Actor **Danny DeVito** proves that ignorance truly is bliss



"I'm not a big fan of 'Xbox One-and-a-half'. If we're going to move forward, I want to move forward in big numbers."

You can have this one for free, **Phil Spencer**: Xbox 360 has a nice ring to it

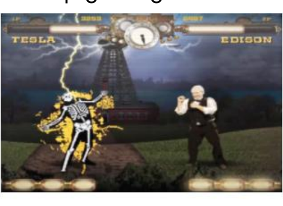
"I think it's safe to say that we **underestimated the popularity** of some of the singleplayer features."



We've got a great joke about this, **Yoshinori Ono**. We'll be releasing a word of it per week over the next six months

ARCADE WATCH

Keeping an eye on the coin-op gaming scene



Game *The War Of Currents: Tesla Vs Edison*
Manufacturer Real Art

While certain poorly maintained old cabinets in the dark corners of seaside arcades might give you pause before you lay hands on them, some machines are deliberately out to electrocute you. The latest example is a 2D beat 'em up from Ohio-based creative outfit Real Art. Unveiled at SXSW, the one-off machine sees digitised representations of Nikola Tesla and Thomas Edison go at it over electrical standards.

The War Of Currents offers a scant four stages and the titular pair of characters with which to do battle. Land enough hits and you'll build up a charge of energy that can be released as a special move which zaps your onscreen opponent and causes massive damage, while also sending a small electrical charge to the hand of whoever's grasping the machine's other metal joystick. Naturally, as an incentive to avoid losing, it proves a little more effective than simple pride.

The striking yellow-and-black upright cabinet caters for the game's simple mechanics with dual two-button and stick controls, and rejects the fashion for enormous screens for something a little more intimate. While the cabinet is a bespoke build, it's now taken up permanent residence at Real Art's partner project, Proto Buildbar, a combination of maker space and café where people can build and print their creations, which happens to be right next door to Real Art.

ALBION UNVEILED



Featuring interviews with Lionhead Studios and extensive high-quality concept art for each of the heroes, villains, creatures and locations in the game, and much, much more!

TITANBOOKS.COM

My Favourite Game
Jim Guthrie

The Sword & Sworcery composer and indie musician discusses composing on PS1, 'anti-game music', and Resident Evil 4

Award-winning Canadian musician **Jim Guthrie** is a prolific solo artist and has recorded as a member of Islands, Human Highway and Royal City. He has also created or contributed to the soundtracks of *Superbrothers: Sword & Sworcery EP*, *Planet Coaster* and Indie Game: The Movie, and is scoring Xbox One title *Below*. His game career, though, had its beginnings on PlayStation kit…

Before *Sword & Sworcery*'s dark electronica, you were a rock/folk artist. How did you make that leap?
A friend gave me a PS1, but I was so broke I used to play a lot of demos from Official PlayStation Magazine cover discs. One of them had *MTV Music Generator* on it. I still have a PSOne with a folding screen that I use to compose music on from time to time. Craig Adams got in touch because he was a fan of my music. I ended up sending him a CD of music I'd made on the PlayStation, and he really dug it. We stayed friends and then maybe six years later he asked me to work on *Swords & Sworcery*. He loved those recordings so much we ended up using them. I'd had the opportunity to do ad work, scoring a film and a few other things, but games gave me my first opportunity to stretch myself as an instrumental composer.

That visual and aural aesthetic has become quite fashionable now.
Yeah. I remember when I did *Sword & Sworcery* I was shocked that there weren't more people from indie rock and other places making music for games. The more we can mash that up, the better.

SUPER BROTHER
Guthrie released his first solo album, A Thousand Songs, in 2001 on Three Gut Records. He put out two more before working with Dark Flute Records to release his Sword & Sworcery LP and Indie Game: The Movie soundtracks, along with a collection of his *MTV Generator* compositions called Children Of The Clone. Along with his solo work and bands, Guthrie has collaborated on a variety of other projects with other musicians and also supplied a song for the recent remake of *Amplitude*. Visit jimguthrie.org for more info and to listen to his music.



Composing for videogames wasn't always in your sights, then?
I think if I knew I could compose music for games when I was 16, I would have gone in that direction. But when you're 16, that stuff just seems out of reach.

How has the process of composing for *Below* felt different?
It's a slightly different group of people – it's still with Capy, but Craig's not there. Kris Piotrowski is the creative director – he likes what I do, and I love the way he thinks, so it's basically him trying to please me trying to please him. The soundtrack is very different to *Sword & Sworcery* – it's much more droney and atmospheric, and there's not really beats as much, and not as many melodies you can hold on to. We're trying to set moods that aren't spoonfed at every moment – it's more like we're laying out these blankets and you just lay on them and roll around a bit.

> "I still have a PSOne with a folding screen that I use to compose music on from time to time"

***Planet Coaster* feels like a surprising addition to your CV.**
[Frontier's] Janesta Boudreau got in touch and knew my indie and folk stuff from way back when, and was like, "I don't know what you're up to, but I know you've done games in the past and I'm working on this thing – I think you might be a really good fit". As a self-employed guy, I'm always up to hear about a new job. Basically, when they said they loved my stuff, they had me right there. And I'd been making so much dark, scary music for *Below* that it was really fun to just strum on an acoustic again. The way they pitched it to me was that they were going to have this kind of game music that happens on the rides, but then I would create other stuff which is almost, as they put it, 'anti-game music'. It's a really easy sell if you say, "You know that thing you've been doing for the past 20 years and not making that much money doing? Just do that some more, but here, we'll totally pay you to do it." It's like, "Are you kidding me, you just want me to be me?" That's a huge compliment, and hopefully it's a huge compliment to them for me to recognise that I think that it's a little risky or weird, in a way, to put that in there.

So which game is your personal favourite?
Well, I've spent just as much time playing *MTV Music Generator* as any other game, so it's either that or *Resident Evil 4*. I'd played *RE1*, but then didn't play any of the other ones. And *RE4* really stuck out in the catalogue of what was available on the Wii. I played a whole lot and I thought about it all the time – I loved the combat, the weapons and the music. And the totally ridiculous dialogue. I've probably finished it 20 times – there was a lot of replayability. And it wouldn't make you feel like a jerk if you weren't good at it – it was monitoring how accurate your shots were, and how well you were doing, and if you weren't very good at it, when you got to the harder levels it wouldn't throw more people at you. ■



Guthrie first made his mark on that most hi-tech of formats, the audio cassette. The analogue delights of the humble pinball table feel like a good fit, then

WEBSITE
Diablo proposal
www.bit.ly/diabloproposal

Diablo creator David Brevik has uploaded the now coffee-stained seven-page proposal he used to pitch the game back in '94. The document was put together while Brevik was still working at Condor, the studio he founded (read more in **E**286's Collected Works). Brevik envisioned the game as a turn-based Roguelike with randomly generated dungeons. While the game would eventually transform into the authored, realtime action RPG that revolutionised the genre, the proposal's introduction reveals that the spirit of what *Diablo* became was there from the start. "As games today substitute gameplay with multimedia extravaganzas," it reads, "and strive toward needless scale and complexity, we seek to reinvigorate the hack-and-slash, feel-good gaming audience."

Diablo
GAME CONCEPT BY CONDOR, INC.



VIDEO
The Faking Of… Nintendo NX
www.bit.ly/nxfake

With Nintendo's NX due this year but still unseen, Internet wags and Photoshop fans have much to keep them occupied. None will go to the lengths Frank Sandqvist did with his NX controller fake, which used a Photoshop mockup of a controller with built-in screen that most onlookers saw through – or hoped they did. Here, Sandqvist shows a step-by-step breakdown of how he used a 3D printer, laser-cutting tool and spraypaint to mock up a device one Nintendo fansite called 'terrifying'. A fascinating look behind the scenes of a very modern hoax.

WEB GAME
Science Kombat
www.bit.ly/scikombat

Brazilian science-and-culture magazine Superinteressante covers its subject matter in a light, accessible fashion. It's an ethos that carries over well from the styleguide to this charmingly bonkers fighting game that pits scientific legends against one another in a fight to the flashing-neon KO screen. Alan Turing summons a flying robot; Steven Hawking has a teleport; and on this evidence Pythagoras had mastered the Kamehameha long before *Dragon Ball Z* arrived on the scene. It's not exactly an educational tool, unless you want to send your offspring to school believing Isaac Newton's pioneering role in physics also involved shooting rainbow lasers out of a cane. Those who find the sciences a turnoff might prefer Superinteressante's previous game in this mould, the logically titled *Philosofighters*.



THIS MONTH ON EDGE

When we weren't doing everything else, we were thinking about stuff like this

BOOK
Indie Games: The Complete Introduction To Indie Gaming
www.bit.ly/indiediver

Vice videogames editor Mike Diver moved into game journalism from a career championing new music for Drowned In Sound. He continues to back the underdog in his first book, which looks at the tumultuous indie development scene. This isn't an industry text, but rather a finely presented compendium of games aimed at people who might not have heard of them. Diver tackles the evolution of the industry, digital marketplaces and mobile, as well as examining broader topics such as horror, emotional empathy and space through an indie-centric lens, along the way speaking to indie luminaries including Sean Murray, Tim Schafer and David Braben.



continue

Darwin wins again
Codemasters steps into the breach by snapping up Evolution

Miitomo
Offers literally hours of fun. OK, an hour. All right, 20 minutes

Dragon's Dogma
Namco's *Dark Souls*/Affleck mashup was an instant classic…

Summon great
After a month of offline *Souls*, all these co-op partners are a delight

quit

Dying pride
Fable Legends is gone for good. The **Edge** cover curse strikes again

Miinono
A small tip for next time, Nintendo: fewer push notifications

Market-stall merch
… but *DSIII* deserves better than its subpar official clothing line

Summon else
If we're going to help you, you really have to stay alive for a bit

TWEETS

I was a participant in a conversation tonight which involved Tetsuya Nomura sending us approximately 140 pictures of his cats.
James Mielke @jamesmielke
Creative director, Bitsummit

Steam alone has like 9 different notification boxes, I don't see a way to tell it to just STFU.
Jonathan Blow @Jonathan_Blow
Creator, *The Witness*

Fun *Firewatch* fact: I am the hand behind all of Brian's writing because I have the scrawl of a 13-year-old child.
Olly Moss @ollymoss
Graphic designer

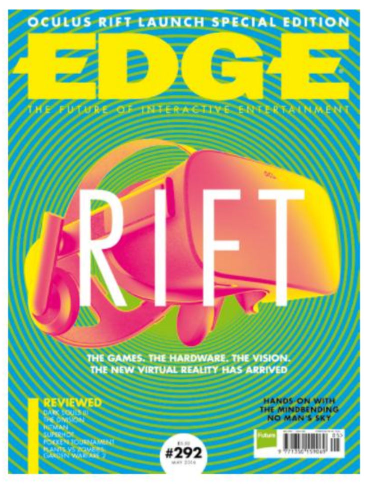
Just looked at some old buses in VR.
Jeff Minter @llamasoft_ox
Founder, Llamasoft



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DISPATCHES JUNE



Issue 292

Dialogue

Send your views, using 'Dialogue' as the subject line, to edge@futurenet.com. Our letter of the month wins a New Nintendo 3DS XL, supplied by the Nintendo UK store



Coin dungeon

Whenever I think about virtual reality I get a deep feeling about its scale that overwhelms me. We used to see VR just as a new fancy and curious gadget, but it has much more to offer besides funny moments. It's offering us a whole new world of possibilities to explore. It's not a just a different videogame experience, but a whole new medium which is going to make an impact on entertainment, science, tourism, cinema, TV...

Virtual reality developers now have the ability to immerse the player completely; they can almost literally transport us to other worlds, because the limitations of the screen don't exist any more. It reminds me a little of the leap from 2D to 3D graphics: everyone knew it was going to be something big, but I'm sure none of us could have imagined the point we've reached today.

Forget about physical borders. We won't have to pretend we *are* somewhere ever again; we will simply *be* there. That's going to cause a lot of trouble. Avoiding real-world obstacles (be that the screen, the controller, or your mum taking you out of the experience) has a price; not only a monetary one, but also a philosophical one. Constantly exchanging realities isn't the best way to stay sane. The disconnection from reality will attain levels that we have never seen before.

Also, new technologies are never cheap. Costs will be reduced with time, but what happens in the meantime? We can answer this with another question: what happened the last time a gaming technology was too expensive for our little pockets? The return of retro gamerooms may not be far away.
Sergio Abreu García

Until VR is more widely adopted, that's a fine idea. It would've spared the room we've had to sacrifice for Vive, and would at least mean we'd get a match in multiplayer games. We tried a Vive FPS online the other day. Seven people were playing it worldwide.

> "In its current state, VR is too expensive, and simply lacking the library of games it needs"

Ultimate evolution

Normal developments within the gaming world don't necessarily interest me that much. I'm probably a closet cynic, quietly criticising everything from a distance. However, with the long-awaited public release of the Oculus Rift, and its potential to bring virtual reality (a feature that I never truly believed would reach the average consumer so soon) to the living room, the future of gaming appears bright. No longer restricted to the game developers and very wealthy that we admire online, I'm actually hopeful that I will one day get to try and maybe, just maybe, own a VR set myself.

For the first time in a long while I'm excited about the future of gaming. After all the disappointment of the 'next-gen' consoles (which are under-powered, to say the least), virtual reality promises a unique way of playing our beloved videogames all over again. Over the years games have attempted to offer us players more and more ways to immerse ourselves; to leave reality and escape completely into virtual bliss. Technological breakthroughs that I read about and observe always appear decades away from reaching someone like me, who occasionally invests his student loan in new gaming tech.

However, things have now changed. Virtual reality is *real*; it's on the market. I know this is true because Valve keeps reminding me on Steam that 'VR IS HERE'. These bold words remind me that I'm not in some lucid dream sequence. No, those fancy headsets you've jealously seen others use can now be yours for many, many pound coins. I was hugely worried about the whole idea being another gimmick, like 3D. I think I



www.facebook.com/edgeonline
Discuss gaming topics with fellow **Edge** readers

may be wrong. VR could be the advancement in gaming tech that we really need.

Although virtual reality is actually a real, buyable object now, there's still the issue of filling out your dedicated gaming shelf with VR titles. Oculus launched with 30 games; that's not a bad start, but what about the future? Yeah, there'll be plenty of indie experiments and experiences to be found on Steam and online, but how many triple-A games will follow suit? Not many, I fear.

It's been a similar situation with Blu-ray for films. I remember seeing the first discs in my local supermarket, realising how absent a number of iconic titles were, and balking at the extraordinary price tag that came with it. It's taken a while for high-definition films to be widely accepted as commonplace, and also to drop in price. I think that virtual reality will follow a similar trail of acceptance. In its current state, VR is too expensive, and simply lacking the strong library of games that it so desperately needs. Unlike the gimmicky, disappointing stereoscopic 3D, I actually believe that VR does have a place in the gaming world. There are possibilities for it to become the norm, which is massively promising for the technological development of gaming as a whole.
Alexander Jones

Neither Rift nor Vive are truly massmarket propositions right now, and won't be until their prices become more affordable. By the time PSVR arrives, software and pricing will need to be somewhat less of an issue if Oculus and HTC are to compete.

Monster box

As I closed in on NG++, nearing the century mark in hours invested, my PS3 finally died. But it died doing what it loved: reading the *Dark Souls* disc, meticulously saving the game's data, ensuring that I never lost souls or progress that weren't of my own undoing. This is what it would have wanted.

Kale, a level-118 fighter, exhausted from having to repeatedly tap the square button in order to gain humanity, patiently fed the last of these hard-earned currency to a Daughter of Chaos. Kale, preparing for yet another trek through Lost Izalith, didn't know it then, but this brief rest at the Chaos Witch's sister's bonfire would be his last. That light, which had burned so brightly and had burned so long, finally went out – ironically, indicated to me by three blinking red lights. My PS3's soul petered out long before Kale's ever did.

Now, my copy of *Dark Souls* is forever encased inside its glossy, black tomb. I couldn't have dreamt of a more poetic and wonderful way to burn out, though: a warrior, mid-adventure, on the eve of *Dark Souls III*. PS3, I hope, that in time, like every *Souls* player before you, you eventually come to see death for what it really is: a second chance. A second chance to get back what you have lost: a shot at NG++. I pray that you never go hollow, PS3, and may you burn as grossly incandescent as Lordran's sun. And as for you, Andre of Astora, we have some unfinished business to attend to.
Kyle Charrette

We'd tell you about the screw you can turn to manually remove a jammed PS3 disc, but you've gone to all this poetic trouble and it just wouldn't be fair. Have a New 3DS XL.

Power-up fusion

Videogames are inextricably linked to new technology. That's not going to change. However, our obsession with the new, clubbed together with our understanding that retroactive approaches to design and technological limitations should be reserved for a £10 download-exclusive title, may lead to limited scope in the triple-A market.

Just look at **E**292's preview of *Ratchet & Clank*'s PS4 debut for a prime example. An **Edge** staffer is besotted by a game's 2016 technological advancements but less welcoming of some design aspects that harken back to 2002.

Is a 2002 design approach inherently bad? Does it somehow require a lesser degree of commitment or effort from the developers? The assumption is that if the audience pays £40 they demand a cutting-edge experience, both in terms of technological sophistication and the conventions of modern game design.

But what is modern game design? It's not judged by technological 'progress' but rather by trends. The *Souls* games have seen punishing difficulty become vogue, and Ubisoft's success is slowly resulting in a backlash against objective-abundant open worlds. If last year's *Yooka-Laylee* funding is anything to go by, late-'90s collectathons will soon become fashionable again too.

It seems a little myopic of **Edge** to think less of *Ratchet & Clank*'s 2002 design approach simply because it's not in vogue. Give it five years and I'm sure the public's cravings for PS2-era design will be looked at through rose-tinted glasses and *Ratchet & Clank*'s PS4 debut will be heralded as a hidden gem. Who knows, maybe Sony has already engineered a revival of 2002 design philosophies with its PS2-on-PS4 scheme?
Fergus Pearson

It's not that bygone design principles are past it, but their presentation against a 2016 visual sheen can be jarring. And please stop being mean about our eyesight.

Awakening

Hi there! I'm Arlo, I'm 12 years old! I really loved your magazine and it has got me really hyped up for *Dark Souls III*! Before this, I didn't know a thing about *Dark Souls* at all, but now, thanks to you, I am really looking forward to it! I think the quality of the content in this **Edge** magazine is incredible! This is the first time I have had an issue of **Edge** and I loved it so much I asked my dad to get me a subscription, and he did! I think **Edge** is my favourite magazine of all time!
Arlo Heskett

Arlo! Tone down the exclams and maybe next time you can have the 3DS you asked for in all those bits we had to edit out. ■



STEVEN POOLE

Trigger Happy

Shoot first, ask questions later

Anyone can become a game developer these days. Take former Supreme Court Justice Sandra Day O'Connor. As you'll recall, she made up the notorious 5-4 majority who stopped the Florida recount and so gave the presidency to George W Bush in 2000. So who better to teach the children of America how their electoral system really works? In 2009 O'Connor founded a nonprofit education company called iCivics, which has produced an educational game called *Win The White House*, newly updated for the 2016 campaign season. So how accurate a guide is it to the facts of American democracy?

Alas, reality has already overtaken the cartoonishly sober simulation. You may not be surprised to learn that I immediately named my candidate 'Donald Trump' and chose as the slogan for my touring bus 'Victory is certain!' – the best, I felt, out of the available alternatives, with its faint hint of National Socialism. But the game wouldn't actually let me *be* Trump. Things began to go wrong from the very start, when I was designing my policy platform in the primaries. I chose 'Fiscal Responsibility' as one of my key issues, and was given three skeleton speeches to support it. One can easily imagine Donald Trump saying "We can grow our military strength by adding way more robots. Robots are the future," but this is the obvious wrong answer because it is completely irrelevant to the topic. Fair enough. But you also get marked wrong for saying: "Bailing out a sinking business is a lot of work. So many buckets!" This is a perfectly Trumpish thing to say, with its irreverent imagery, and its wondering use of 'so' to make everything sound magnificently bad, or (in the case of his own promises) magnificently good. ("You're going to be so happy," he constantly tells his supporters.)

When I am trying to explain my support for 'Secure Borders', meanwhile, I am not even offered an option as creative as Trump's celebrated plan to build an enormous wall between the US and Mexico, one with a "big, beautiful door" in it. Likewise, when speaking of the threat of international terrorism, it is considered incorrect by the fine minds of the iCivics game to say "We should blow up as much as possible to send a message that we aren't playing around." And yet in November 2015, when asked what he would do about Isis, Donald Trump literally said: "I would bomb the shit out of 'em. I would just bomb those suckers. That's right. I'd blow up the pipes, I'd blow up the refineries, I'd blow up every single inch. There would be nothing left." People loved it.

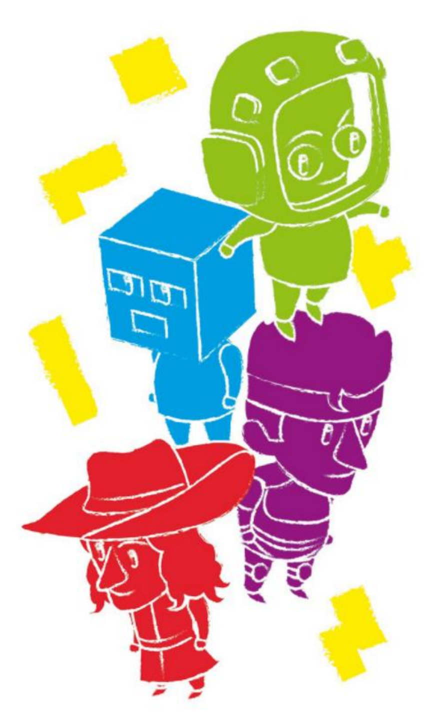


Illustration kaeru.com.ar

Young people are likely to learn more realistic lessons from games not designed for schoolroom use at all

Tragically, then, *Win The White House* simply fails as a model of how American politics is actually working this election cycle, and I have enough faith in American children to think they'll see through it too. But the problem goes deeper. This game is actually anti-democracy. It teaches players to pander to voter prejudices rather than try to explain things. Take, for example, business regulation. A Republican candidate in this game is marked wrong for saying "Companies need lots of rules and regulations if they want to succeed," even though that is uncontroversially true. (The most ardent champions of free markets still want trade and contract rules to be strictly enforced.) Instead the poor child is guided towards choosing the correct tawdry metaphor by arguing: "Companies should be allowed to grow and blossom, and the government shouldn't stop them." Grow and blossom, like little pixel flowers in a walking simulator.

Now, there is nothing wrong with trying to teach children politics, and games might even be one way to do it. With a brilliant teacher overseeing things and leading discussions, *Win The White House* might be only slightly worse than having the class read The Onion. But young people are likely to learn harsher and more realistic lessons about the world – and even better skills of "critical thinking," as Sandra Day O'Connor hopes – from games that aren't explicitly designed for schoolroom use at all. Like the *MGS* fan from South America who posted to a messageboard about how he was electrified by the fact that *Peace Walker* "was all about helping to liberate banana republics". Or like anyone who plays *Papers, Please*. Even *The Division* dramatises the fragility of civilisation in some thoughtful ways. It's not merely a matter of sweetening the bitter pill of philosophy with some faceshooting; it's a matter of not treating the young like idiots. One day, after all, they will be voters too.

Steven Poole's Trigger Happy 2.0 is now available from Amazon. Visit him online at www.stevenpoole.net



NATHAN BROWN

Big Picture Mode

Industry issues given the widescreen treatment

The path from videogame sarcastic-airquotes-journalism to videogame sarcastic-airquotes-PR is a well-trodden one. It is, in my experience at least, the most common next step on the career path for writers, and for good reason: the money's better, you've got the contacts and the relationships, and you know how that part of the industry works inside out. I always appreciate – OK, *sometimes* appreciate – when a writer who jumped the fence approaches us, because they understand how we work, the sort of timescales we operate within, and what we need to get the job done.

The focus is so overwhelmingly on online and video these days that plenty of PRs think two watermarked screenshots, a logo and an embargo set four days after an event is somehow going to result in four pages of a magazine. Working with someone who understands how we operate – because they've worked alongside us, or they've been around long enough to remember how things went when print was the default – can be refreshing. (Mostly, anyway: every so often you get someone who thinks that just because you got drunk together at E3 once, you're going to be interested in writing about their Android farting game.) The best of the best know what we're interested in and tailor their approach accordingly.

Clearly working in PR has its benefits, but I don't think I'd be cut out for it. The biggest single thing stopping me, apart from worrying about how I'd get to sleep at night knowing I'd sold my soul (joke, PR friends!), is that, unless you're lucky enough to work in-house at a single development studio, you're just a small cog in a very big machine. Worse than that, you're a small cog whose job is to ensure the machine as a whole doesn't look silly; but the machine is so large that you have no way of knowing what the rest of the cogs are up to. For all you know, someone somewhere is putting on their clown costume and prepping the stealth release of a deeply racist farting game.



Illustration **kaeru.com.ar**

For all you know, someone is putting on a clown costume and prepping the release of a deeply racist farting game

We've seen a few reminders of that recently – in quick succession, and from some of the biggest players in the game. On March 5, I received an email from Microsoft about the *Fable Legends* beta – sent not to press, but to registered players – detailing a couple of features that had recently been implemented into Lionhead's weird F2P experiment. The subject line read '*Fable Legends* – a new reason to play every day'. Two reasons later, on March 7, Microsoft announced it had cancelled the game and was proposing to close Lionhead's doors. There's no way that whoever sent the first email knew what was coming: it was a decision made at the very highest level of Microsoft. But when I saw the news, I immediately thought back to that email, and cringed on behalf of the poor flack who, just days earlier, had clicked send, blissfully ignorant of the axe hovering above them and their game.

Sony, meanwhile, has played the PR game masterfully so far this generation. It seemed like it had done it again when a kind-hearted and undoubtedly well-meaning tweet from the PlayStation Jobs account a few days after the Lionhead announcement invited all affected staff to a recruitment fair the following week. One small problem: unbeknownst to whoever hit send on that, a dozen or so paygrades up the chain the bean-counters were planning a closure of their own. Less than a fortnight later, Sony announced its plans to drop the shutters on Evolution Studios. Armchair pundits called conspiracy, decrying the company for making eyes at Microsoft's Lionhead staff while plotting a mass breakup of its own, as if the two were somehow connected.

I recently completed a start-to-finish re-watch of The West Wing. I do it every few years and felt the need to do it again, its cosy lefty embrace a welcome sanctuary from a world lurching towards a right-wing catastrophe. President Bartlet's team obsess over how every little detail of a policy, announcement or reaction to the day's political hot potato might go over with the press and the voters. Nothing goes out to the media until it's been discussed from all angles by the smartest people in the room, to ensure that the White House isn't left looking stupid. Would the game industry look a bit better if things ran a little more like that? Perhaps, but to the casual observer it'd certainly be a little less entertaining. And it would block off a lucrative career path to some of my peers. I get enough dirty looks in the office as it is.

Nathan Brown is not interested in looking at your pixel-art world-builder from a team of former MMO developers



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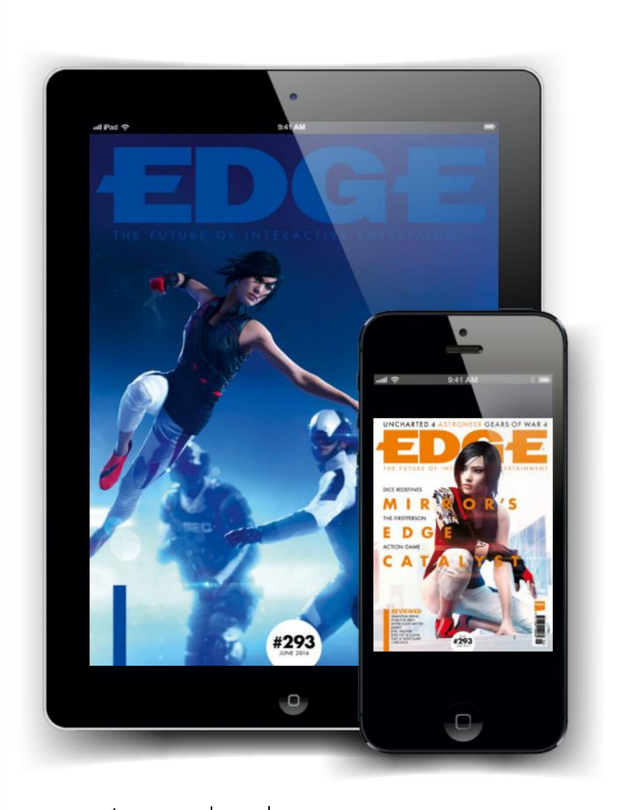
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H Y P E

THE GAMES IN OUR SIGHTS THIS MONTH



Explore the iPad edition of **Edge** for extra Hype content

In name only

Fuss in the music world, as Deep Purple are inducted into the Rock And Roll Hall Of Fame without legendary lead guitarist Ritchie Blackmore. Deep Purple were formed in 1968 and are still touring – as you read this, they're in Japan. But only one of the original lineup is with the group. You might think it odd to draw parallels between sexagenarian rock aristocracy and the cutting edge of interactive entertainment, but here we all are.

Just weeks ahead of release, we finally have our first play of the singleplayer component of *Uncharted 4* (p36). It is, its name implies, the fourth game in Naughty Dog's *Nathan Drake* series. But what does that mean, when series creators Amy Hennig and Richard Lemarchand have skipped off to EA and academia respectively, and creative control has been passed to the pair who helmed *The Last Of Us*? The result is a game that seeks to address the most frequent criticisms aimed at Nathan Drake – and the answers, to some of them at least, come from Joel and Ellie.

This month's Hype crop yields another first hands-on with a forthcoming platform exclusive, but the relative lack of excitement around *Gears Of War 4* (p42) speaks to its rather muddled lineage. *Gears* has passed from North Carolina to Warsaw, from Epic Games to Microsoft, and is now being made by a Vancouver studio that has been closed down once and changed its name twice. Will this still be a *Gears* game? Absolutely, resolutely yes – though that's not necessarily a good thing in 2016.

Epic Games seems to understand that. *Paragon* (p52) is a new IP from the *Gears Of War* creator, though a MOBA is far from a new concept, and its maker is much changed from the days when Cliff Bleszinski held up a gun with a chainsaw on it and was treated like a rock star. Just like Deep Purple, those who remain at Epic Games carry on without their talisman. We doubt, however, that they'll ever make it big in Japan.

MOST WANTED

Overwatch PC, PS4, Xbox One
After *Paragon* and its ilk have made an unconvincing case for the straight-up MOBA on console, all eyes are on Blizzard's reworking of a careful selection of the genre's systems. Fast-paced and silky smooth, it's a fine fit for consoles.

Doom PC, PS4, Xbox One
The recent multiplayer beta proved one thing loud and clear: one-hit shotgun kills are never going to get old. Id's got the feel of the thing just right, and it's just as well, since its attention is needed elsewhere: the beta had so much screen tearing it was like playing a shonky VHS.

Let It Die PS4
Suda, you've been gone too long. Intrigued as we are by the premise – an asynchronous multiplayer brawler with CPU aggressors sporting AI based on real player data – it's the prospect of suplexing a baddie into a shower of gore while wearing only Speedos that really has us paying attention.



UNCHARTED 4: A THIEF'S END

Everyone loves driving through muddy puddles

Developer	Naughty Dog
Publisher	SIE
Format	PS4
Origin	US
Release	May 12

Nathan Drake, his brother Sam and cigar-chomping comrade Sully gaze out on the plains of Madagascar, the setting for a long-overdue first hands-on with *Uncharted 4*


ROAD HOGG
RENTALS



UNCHARTED 4: A THIEF'S END



Nadine Ross and Rafe Adler are the game's principal antagonists, helming a private military company that's racing Drake and co to find the mythical pirate utopia supposedly established by 17th-century pirate Henry Every

Well, that's one way to do it, apparently. Few series are so frequently criticised for their linearity as *Uncharted*, and when we visited Naughty Dog for **E**276's cover story we got the distinct impression that the studio was aware of, and working to counter, that perception. Fifteen months later and just weeks away from launch, we finally have our first hands-on experience with *Uncharted 4*'s singleplayer mode, and a chance to see to what extent Naughty Dog has broken with its own tradition. And it doesn't take long – seconds, really. As our demo, taken from the final game's fourth chapter, begins, Nathan Drake sits behind the wheel of a 4x4 on the mud-slicked plains of Madagascar. He's at a fork in the road. Do we go left, or right? Heavens above, the possibilities are literally plural. OK, so those two roads simply bend around a small rock formation and converge once more five seconds later, but look, kids! *Choice*.

He's at a fork in the road. Do we go left, or right? The possibilities are literally plural

It's easy to be cynical, of course, but what is most disappointing about this arbitrary bit of path-splitting is that it's entirely unnecessary. We've seen Drake in his jeep before, at last year's E3, where he smashed through a Madagascan marketplace in what, a few left-or-right choices aside, was at heart the sort of follow-your-nose spectacle we've come to expect from *Uncharted*. Yet here, we have full control of the 4x4 in a vast, 360-degree space. There's an ultimate goal – a volcano on the horizon that Drake, brother Sam and longtime cohort Sully hope is the next step on their quest to find a mythical pirate utopia set up by Henry Every, the most successful man ever to swash a buckle. But that can wait. In the meantime, we're free to head off and explore – and so, for novelty's sake if nothing else, we take Nathan Drake off the beaten track.



In *Uncharted*s past, Naughty Dog has used the glimmer of treasure to entice a player into a darkened corner off the critical path. Here, it's the decayed upper floor of some ruins, peeping out over a rock face a few hundred yards away, that draws the eye. We park up, hop out of the jeep, and clamber up. On a crumbling wall sits a shiny trinket and a button prompt. We pick up a tobacco tin. We inspect it. Nothing happens. Is this a sufficient return on our endeavour? Games that offer this sort of explorative freedom tend to reward the inquisitive adventurer with dollops of XP; perhaps a new weapon or skill. Something, at least. "Anything?" Sully asks, as Drake clambers back into the front seat. "Ehhh," Drake responds, which just about sums it up. "Nothing worthwhile. Come on, let's keep going."

A fine idea. The jeep, it quickly transpires, is about much more than simply covering this vast expanse at speed. It's your only weapon against the mud, and there's an awful lot of it. Try to walk up a wet clay slope and Drake will get halfway before losing his footing, falling face first in the muck and sliding back down to solid ground. The 4x4 can make it, but its accelerator isn't exactly an automatic win button. The back end slides this way and that as tyres battle for traction in the mire, and you'll need to chart a course between clumps of rock poking above the surface to give you enough purchase to make it up steeper slopes. A winch is dismissed as an unnecessary rental expense by Sully early on, but quickly proves essential in environmental puzzles – first to pull the jeep up a sheer wall so that Drake and co can continue their mud-slicked journey, and later to pull down the supports from a broken bridge to make them into a ramp.

And this is the point. Naughty Dog hasn't just made a bigger space for the sake of it: this is a level, and your progress through it is a puzzle. The trinkets and tobacco tins that dot the periphery of the plains of Madagascar are not the sole rewards for exploration – there's satisfaction to be gained from simply having reached them.

Still, is this really what we want from *Uncharted*? Many see its linearity as an asset; as the understandable cost of doing business in a game that offers such rollicking ▶



Asset management

From a technical standpoint, Naughty Dog is the jewel in PlayStation's crown. Mark Cerny's Advanced Technology Group is based in a walled-off corner of the studio floor, and the *Uncharted* maker was one of the first stops on Hideo Kojima's fact-finding tech tour after he signed up with Sony. What's the secret? "We do a lot of brute-force management of assets," lead game designer Ricky Cambier says. "The second we're done with an animation, we unload it. That gives us room to focus on the environment. Take the marketplace demo. Drake has all these animations for walking and exploring, but they're not loaded, because we need that space for more, more, more. I'd be curious to know how many other studios do it." Not many, we suspect.

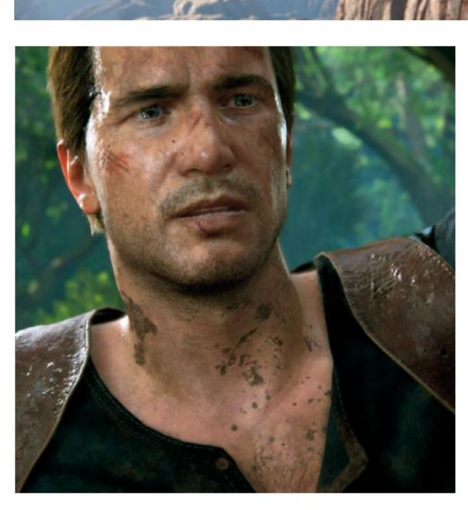


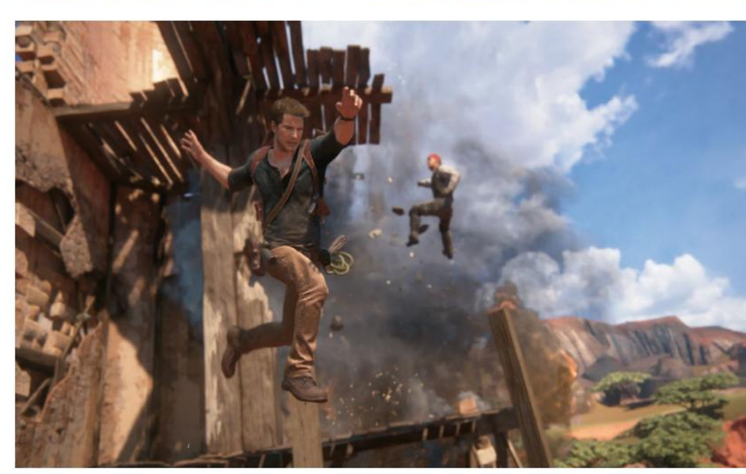
ABOVE **While Drake certainly plays the role of point man in combat, both Sully and Sam stay close by, and aren't afraid to get stuck in themselves. At one point, with the screen drained of colour and Drake on the brink of death, Sully came in swinging to save the day.** LEFT **Neither Cambier nor his PR travelling companion resort to the cliché of calling the jeep a character in itself, but it's a vital tool in this section of the game, and certainly has personality as it struggles to gain purchase on the muddy plains**





ABOVE **Melee combat is the same old one-button stuff, but there's a tremendous crunch to connecting blows, and Naughty Dog's animation blending has come on leaps and bounds since the PlayStation 3 era.**
TOP RIGHT **Enemies are aggressive and powerful, lending dynamism to the thirdperson gunplay, especially for anyone who's been playing *The Division*. If you don't keep moving, you'll be quickly pinned down and flanked.**
MAIN **Presented with a large, circular arena with a single sniper atop a central tower, you'd think a quiet climb to the summit to dispatch the greatest threat would be the logical course of action – until Drake flings a body down below and alerts the entire enemy faction.**
BELOW LEFT **Since we spend most of our time looking over Drake's shoulder, there's little opportunity to assess how much of Naughty Dog's remarkable cutscene facial animation is rendered in-game. A long-overdue hands-on means it's a worthwhile tradeoff.**
FAR RIGHT **We would've liked to have given Drake's new traversal moveset a more relaxed workout, but it's tremendously important in combat too, both as you clamber around to line up stealth kills, and leg it to break line of sight when it all goes to pot**







UNCHARTED 4: A THIEF'S END



Ricky Cambier, lead designer

spectacle at so cracking a lick. Does widening things out like this not risk diluting what makes the series special? Naturally, lead designer **Ricky Cambier** doesn't think so. "If we give the player choices that continue to engage them, I don't think the pacing really suffers at all," he says. "It was challenging at times to see how far we could open it up and still keep reminding people of their [ultimate] goal. If you ever lose sight of that, there's a risk of having too much [freedom] for someone who wants this authored story."

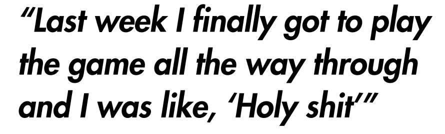
That approach extends to the combat, as we discover when Drake and company happen upon an old colony outpost that's being rigged for demolition by Shoreline, the shady PMC that's also on Every's trail. It's a combat bowl in the *Uncharted* tradition, rejigged for the game's increased focus on stealth. Cambier insists it's possible to completely ghost the sequence, using the blandly named 'stealth grass' in combination with traditional cover to take out the dozen or so patrolling guards without being detected.

You could've fooled us. Enemies are easily alerted and annoyingly persistent once you've caught their eye. They move intelligently, and hit hard. Stealth is encouraged, if not essential – perhaps not for the whole sequence, but certainly for breaking line of sight, circling around and plotting your next assault. Charging in guns blazing is asking for trouble, and often a quick death. Dropped straight into the mid-game with no tutorials or time to reacclimatise to Naughty Dog's atypical button mappings (Triangle to reload!), we expected a struggle, but not quite like this. There's always been a tension between *Uncharted*'s breezy, Saturday-matinee power fantasy and the stubbornness of its baddies, but on this evidence it has never been so pronounced. Giving Drake the ability to effectively become invisible by simply breaking line of sight and taking cover means that enemies require a commensurate boost in power. Naughty Dog appears to have obliged.



Still, when it finally works, it's tremendously satisfying. The only real sour note is Drake's grapple hook, which gives Naughty Dog's designers plenty to think about in platforming sections but in the thick of battle simply means a canned takedown animation whose appeal quickly wanes. This is an odd choice of demo, in a way, but it's clear Naughty Dog wants to communicate its renewed focus on freedom, while avoiding a repeat of *Uncharted 3*'s pre-release marketing, which left nary a setpiece unspoiled.

Whatever the marketing strategy, this would still be the prettiest game the current generation has yet produced. The attention to detail is astonishing – Drake seems to have at least one bespoke animation for every possible action – and while the full game's palette will doubtless vary, it's heartening to see a big-budget game where a big blue sky looks down on a world splashed with sumptuous colour. This is a much-delayed game but from a technical perspective, at least, it's been time well spent. Naughty Dog is, famously, a studio that crunches – one staffer described the process of getting



"Last week I finally got to play the game all the way through and I was like, 'Holy shit'"

Uncharted 3 out the door as "brutal" – and while Cambier won't quite come out and say it, it seems like it's happened again.

"Delays are bittersweet, always," he says, "but this game is important to us. We wanted to make sure we got it right. Last week I finally got to sit and play the game all the way through with everything in place and I was kind of like, 'Holy *shit*'. But you never know. I've never made a game and gone, 'Dude, this is the best game of the year, hands down.' It's never felt that way."

It clearly has for Sony – it was the platform holder, not the developer, that was behind *Uncharted 4*'s latest delay, a two-week slip designed to address manufacturing issues. Simply put, Sony was worried it wouldn't be able to put enough copies on store shelves to meet demand. When, on the cover of **E**276, we called *Uncharted 4* the biggest game of the year, we were talking about 2015. While this wasn't the perfect way to demonstrate it, it's hard to see it being beaten by anything else 2016 has to offer. ■



Pace makers

Naughty Dog is one of gaming's better storytellers. Among the small group of studios that work with budgets in the tens of millions, it's almost without equal. But pacing is not simply a narrative concern, Cambier explains – it affects the design teams too. "*Uncharted*'s about variety," he says. "We have these great, tense sniper fights. We have these narrow hallways with shotgunners closing in on you. Then we have setpiece moments, very specific fights. Just like the story arc, our combat arc has this pacing, these beats we have to hit, these transitions that we have to think about." Cambier's confident that Naughty Dog's design team has pulled it off. We'll find out for certain soon enough.



GEARS OF WAR 4

A band of clockwork soldiers shoots for the past

Developer The Coalition
Publisher Microsoft Studios
Format Xbox One
Origin Canada
Release Autumn

To think that *Gears Of War* was once an exciting series is an odd thing. The original may not have invented cover combat, but its methodical pace and horror inflections were a radical departure for Epic following its twitchy *Unreal* shooters. While the impact of the game's engine on the rise of HDTV has been exaggerated, it made a fearsome case for the Xbox 360 hardware at a critical point in the war of perceptions with PS3. The multiplayer, meanwhile, became the scene of a trilogy-length clash with fans who preferred to exploit the hallowed Gnasher shotgun rather than fighting at mid-range as the designers had intended.

By contrast, The Coalition's *Gears Of War 4* seems elegantly constructed but anodyne. The first brand-new instalment since Microsoft acquired the licence in 2014, it's a game in thrall to both its own heritage and market research that has yet to make an unanswerable case for the IP's return. The closest it comes, right now, is in the wind. *Gears Of War 4*'s campaign takes place 25 years after the destruction of the Locust in *Gears 3*, with the vaguely Italian planet of Sera now ravaged by enormous electrical storms, obliging much of the population to live in fortified cities. The series is no stranger to hazardous weather – the original had its clouds of photophobic flesh-eating bats – but the impact on play seems more sustained in *Gears 4*. At its most severe, the wind may erode the very layout, allowing you to blast cover spots loose and send them spinning across an area, mowing down opponents. It may also affect grenade and heavier projectile trajectories, tossing them rudely back into your face or, once you relocate upwind, usefully lengthening a throw. Characters are harder to manoeuvre in a gale, and you can pick off foes by shooting their legs out from under them so the tempest whisks them away.



It's an enticing layer of tactical variables, and a way of directing and shaping encounters that evokes the perpetually collapsing landscapes of Sony's *Uncharted*, a franchise whose power Xbox head Phil Spencer is eager to counter. But this sits alongside enemy design that, so far, reprises the Xbox 360 trilogy's Locust a little too narrowly, with a combination of 'fixers' who pin the player, 'flushers' who drive you out, and 'mirrors' who are there to form a clear opposing battle line. Sera's new bogeymen, the Swarm, have a few distinctive tricks, in fairness. There are the Juvies, flailing newborns who sometimes hatch from eggs in an area, and may evolve if left upright into fully fledged Swarm footsoldiers. You'll also run into Pouncers, agile quadrupeds with unarmoured bellies, ▶

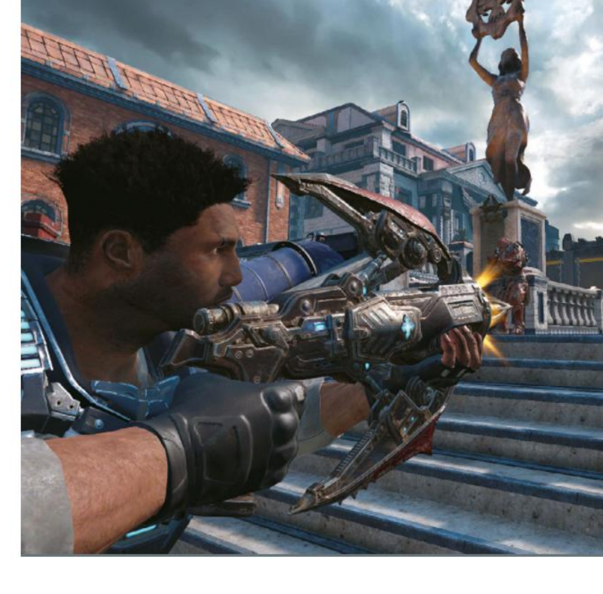


Studio head and series co-creator Rod Fergusson



The first *Gears* was in part a story about absentee fathers. In *Gears 4*, JD Fenix has run away from his own and enlisted with the COG military





who flick darts at targets in open ground and rush down those who hide.

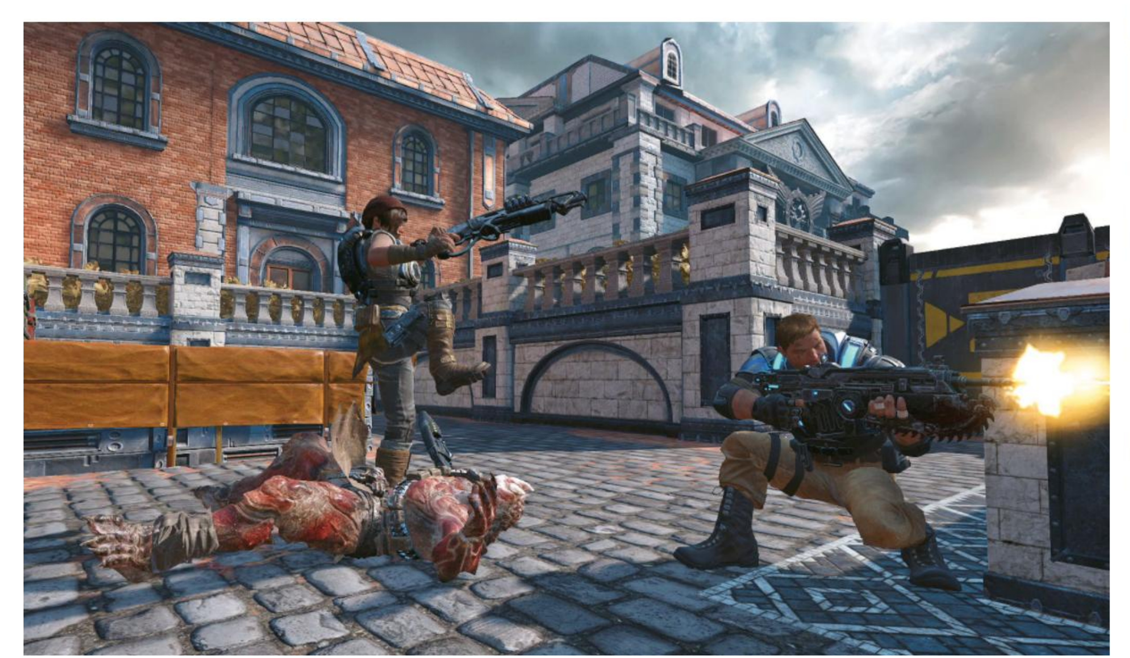
The volatility these new aggressors bring to the sandbox is welcome, but precedents exist in previous games, and the gunplay itself is extremely well-travelled. Dispensing with *Call Of Duty*-style mechanics such as offhand grenade throwing in *Gears Of War: Judgment*, The Coalition has reverted to *Gears Of War 3*'s control model. It's a sensible decision, and there are tweaks to the flow in close combat situations – a more fluid cover-vault that sets an opponent up for a context-sensitive knife execution, and the ability to reach over and collar a foe hunkered down directly opposite, at the risk of exposing yourself to a shotgun riposte. Explosive, however, all this most certainly is not, and what new weapons the developer has revealed so far are equally perfunctory. The Dropshot is an evolution of the Locust Digger, the difference being that the bomb floats over obstacles rather than tunnelling under them, while the Buzzkill spits ricocheting sawblades that may pose as much threat to players as the target.

Studio head and series co-creator **Rod Fergusson** is unfazed by accusations of playing too safe, arguing that the new developer still has to prove it's worthy of the licence. "That's the best thing you can tell me, that it feels a little too much like *Gears Of War*," he says. "That's great. If we were Epic and we'd been working on the game for seven years, it would open the door for all sorts of ideas. But we're a whole new studio, and we felt we had to be true to the series, rather than spinning it out. I think it would be seen as disrespectful."

Creative director **Chuck Osieja** confesses that The Coalition is "always nervous" about changing the formula, even following the reasonably accomplished *Gears Of War: Ultimate Edition* remaster. "I think when this game launches and it's received well, then we'll start to look at other opportunities for where the IP can go," he says.

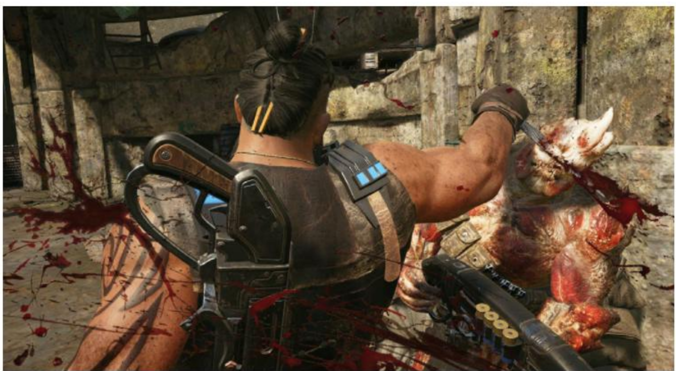
Nowhere is *Gears Of War 4*'s fondness of convention more dispiriting than in the person of hulking Caucasian protagonist JD Fenix, flanked by mixed-ethnicity

Gears 4 supports twoplayer splitscreen and online co-op – a welcome step back from _Gears 3_'s chaotic fourplayer campaign. Player two gets to choose between Kait or JD

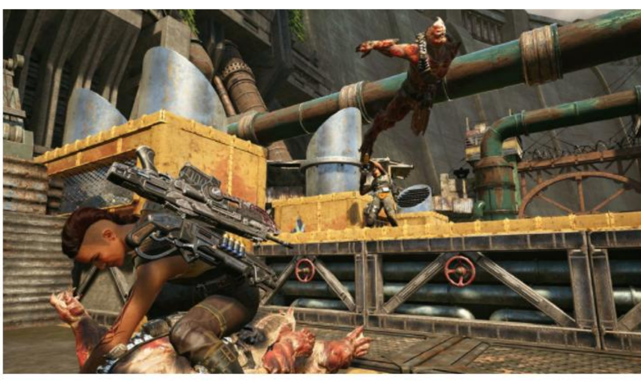








LEFT **The origins of the Swarm are unclear, though they superficially resemble the Locust. JD and co first encounter them while investigating raids on Kait's family settlement**



TOP LEFT ***Gears Of War* continues to resist the lure of *Call Of Duty*-style loadout customisation – there are no unlockable perks or gear, only power weapons on the maps themselves.** ABOVE **On the technology side, The Coalition is aiming for locked 60fps and 1080p in multiplayer, complete with realtime reflections and temporal antialiasing**

sidekick Delmont 'Del' Walker and the tomboyish Kait Diaz. Fergusson insists that this quintessentially dudebro trio offer more room for "nuance" and growth between games than, say, the original's African-American caricature Augustus Cole. "We had to create a shorthand [in *Gears Of War 1*], and so we created archetypes," he explains. "Because for a while, Cole was the scientist, but people couldn't connect with that – we had to do a lot of explanation. So we thought: this is kind of known, it's an archetype that people understand. Any Given Sunday, that football character, people know that. It made it easier to say 'this is who Cole is', because we only had 60 minutes of cinematics, [so there was] no time to go into the backstory. Whereas here we have much more nuance, we have time to develop these characters, because they're young."

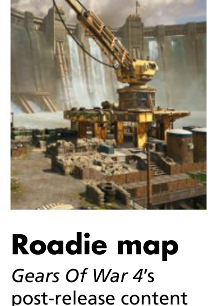
Gears Of War 4's multiplayer is also built for growth in a way its predecessors weren't. In keeping with *Halo 5*, the offering has been rejigged to suit newcomers and seasoned players alike. There are now performance tiers that sit alongside basic multiplayer XP progression and feed into matchmaking, for more balanced games. The Coalition has yet to say whether *Gears Of War 2*'s beloved Horde Mode will return, but there's the option of co-op against supposedly more varied and "personable" AIs on multiplayer maps. The new Escalation mode is aimed squarely at the tournament crowd, a game of capture and hold in which the loser gets to pick the map's weapon drops during the next round. There's a more robust spectator interface that allows you to monitor each player's health and equipment, leaping to their viewpoint with a single click. The Coalition has even redesigned certain abilities with spectators in mind. The famous Active Reload timing mingame, for example, now has a small cooldown to discourage players from continually firing a bullet, then reloading to gain a power boost. This looked "stupid", Fergusson comments during a presentation, which is a fascinating observation to make of a game with a chainsaw bayonet.

> ***"That's the best thing you can tell me, that it feels a little too much like Gears Of War"***

If you've found the time to play the *Gears 4* multiplayer beta – and in particular the exhilarating Dodgeball mode, which respawns an ally for every opponent killed – you'll know that *Gears Of War* is still an immensely entertaining shooter, offering a mixture of bloody intimacy, team tactics and architectural mystique that has yet to be excelled. However, there's the sense that, as with previous Xbox One exclusives, too much of the game has been assembled by committee. *Gears Of War* saw out the Xbox 360 generation with a bang. It threatens to arrive in this one with a whimper. ■

There are new ways to negotiate cover, but the old tactics hold up fine. Most close-range battles are won by somersaulting past an opponent and drawing faster than they can turn





Roadie map

Gears Of War 4's post-release content strategy is largely as you'd expect. It'll launch with ten maps, but The Coalition plans to rotate new and old maps in and out of the lineup over time based on player feedback. All will be free, though you can buy maps in order to host private matches when they're out of rotation. The idea, says creative director Chuck Osieja, is to create the same back-and-forth with the service that Riot has with *League Of Legends*' free Champions. You can also buy crates with cosmetic personalisation items or earn them in-game, while multiplayer challenges grant XP rewards when completing tasks a certain way – winning a few rounds of TDM using a certain custom skin, for example.

An earlier, pre-VR version of the game was rendered in grayscale, in order to achieve the ideal balance between form and function. VR has allowed colour to gloriously return to the game's world



HYPE

SUPER HYPERCUBE

PSVR's esoteric puzzler from Phil Fish and friends

Developer	Kokoromi
Publisher	Polytron
Format	PSVR
Origin	US
Release	2016



SUPER HYPERCUBE



Heather Kelley of the Kokoromi collective

Super Hypercube shares only its basic rules with Nōkabe, the Japanese TV gameshow in which contestants contort their bodies into increasingly unnatural shapes in order to fit through cutouts in a series of rapidly advancing Styrofoam walls. The hilarity of the TV show format, exported across the world as Hole In The Wall, is largely lost in translation in Kokoromi's stylish and abstract brand of virtual reality, which mimics the analogue special effects, lens flare and retro-futuristic user interfaces of evergreen chic reference points such as 2001: A Space Odyssey, Blade Runner and Xanadu.

Here, in esoteric space, you're rotating clusters of blocks, rather than gurning humans, and the soundtrack is one of a building electronic chorus rather than a screeching gameshow crowd. The principles, nevertheless, remain constant. Using the PlayStation controller's triggers you must rotate the blob of blocks across two axes in order to make it fit snugly through the wall. Move your head to micro-align shape with hole, adding a physical element to the mental manoeuvring. Fail to find the perfect placement and it's game over.

This was the first game to emerge from gamma3D, a 2008 game jam organised by the collective Kokoromi, which counts among its number *Fez* developer Phil Fish. The jam hoped to encourage people to create games in which stereoscopic vision had a meaningful impact on gameplay. The earliest version employed anaglyphic stereoscopy, a kind of 3D effect accessed via 1950s-style red-and-blue-lensed 3D glasses. Kokoromi continued to dabble with the demo, creating custom glasses that allowed players to move their bodies, as well as see depth in the world.

The game continued to develop with each new drip of technological advance, first adding motion camera control and now, in what is clearly the game's ideal pairing, VR headset control. "Since our original game had basically the same core interactions as VR, and was designed for that context from the ground up, the translation process came rather easily," Kokoromi's **Heather Kelley** explains. "The real challenge for us has been taking a solid core game concept that was designed to be a local, five-minute experience, and expand it to make it something with a deeper system that grows with the player as their skill increases."

The team's solution has been elegant. Each time you squeeze through a gap successfully by moving your head, a new cube adds to the cluster, adding both difficulty and a score multiplier. The cube's configurations are random too, preventing the rote learning of patterns. As is the current fashion, the game will feature a daily challenge, with all players tackling a one-time-only game generated from an identical seed.

While the design and delivery platform are a natural fit, the team has had to learn the new rules of VR development quickly – especially as they hope *Super Hypercube* will be a PSVR launch title. "Small things like UI and HUD design turned out to be trickier than expected," Kelley says. "Lots of little things you would normally have taken for granted now have to be reinvented. Is the HUD attached to your head or can you look away from it? Is it fixed in space or does it move? Is it really small and up close, or really big and far away? Before, it was just an overlay you would apply to the screen. Now it's a physical object and you have to consider its position in space, in relation to other objects."

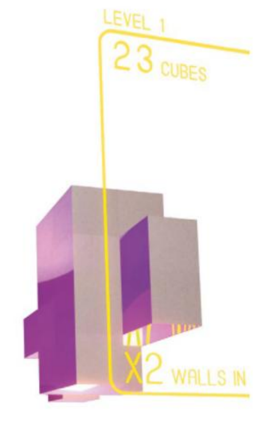
> *"Things you would normally have taken for granted have to be reinvented"*

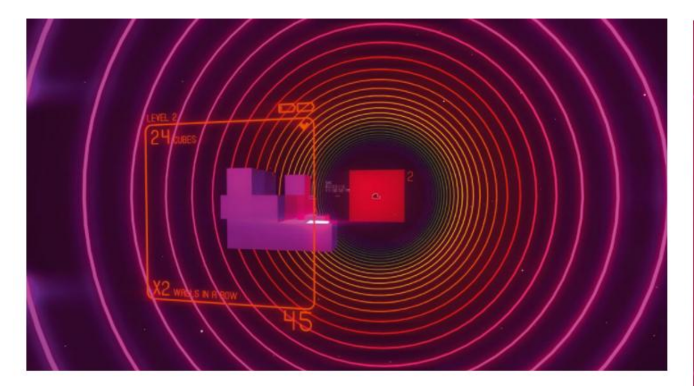
There have been more traditional kinds of design issue to fix, too. "As we've been testing the game we've put it in front of some really skilled players who were able to find holes in our design implementation," Kelley says. One tester was able to figure out the rules for how new cubes were added to the cluster after each victory and use this knowledge to build a giant wall of cubes. "We fixed that, of course," Kelley notes. More surprising is the way in which the physicality of interaction becomes key to the game's appeal. This is a game that would seemingly work outside of VR, yet moving your head to peer around the clusters in order to better understand their shape has become an essential part of its appeal. ■

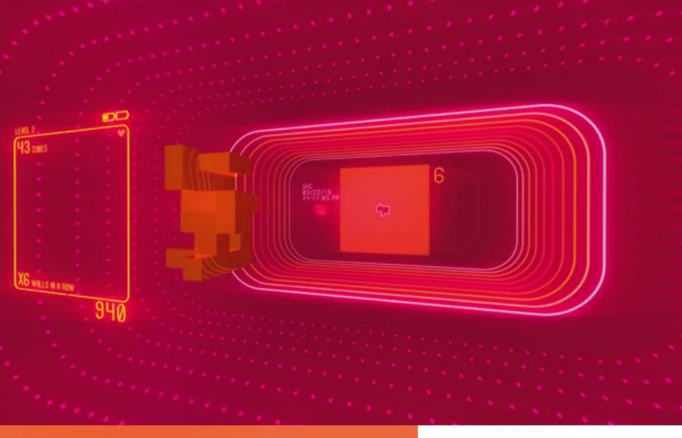


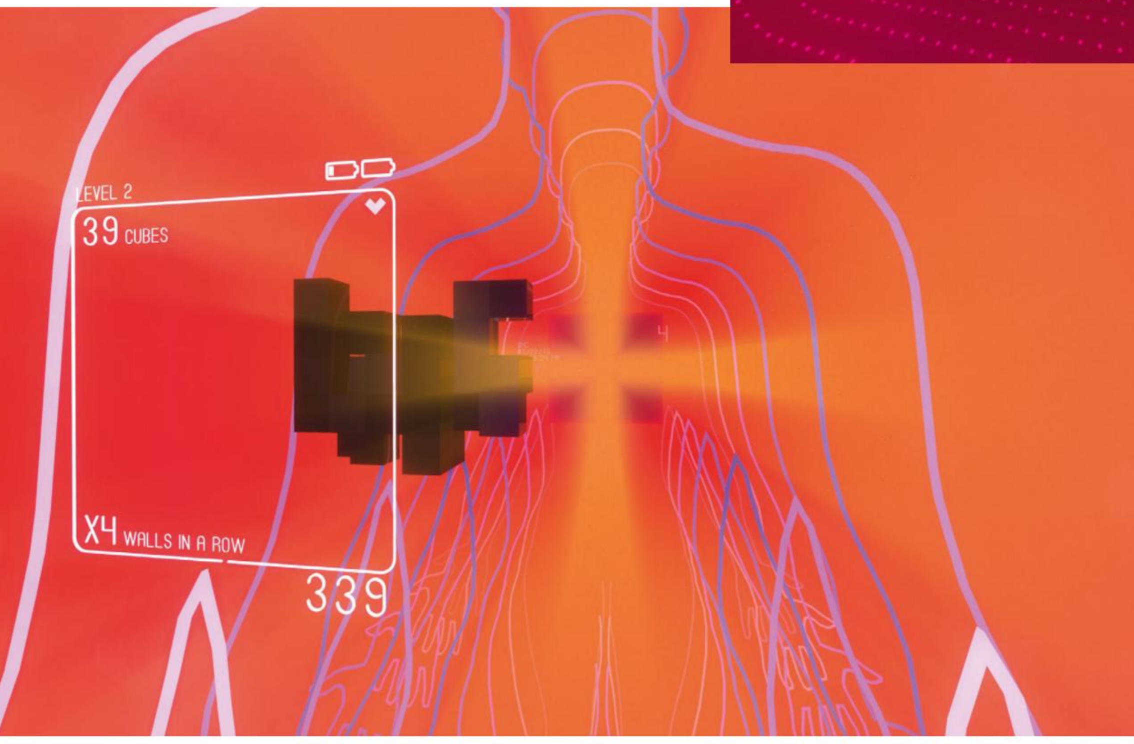
Sound cubes

Super Hypercube's sound effects and dynamic soundtrack contribute a great deal to the game's sense of nostalgic futurism. Created by Kokoromi member Damien Di Fede, the music is yoked to your interactions within 3D space. Each of the cubes 'sings' a note, and as you gather more cubes to your cluster, you add to the building chorus. It's an ingenious design which, like Tetsuya Mizuguchi's *Rez*, causes the soundtrack to match the natural ebb and flow of the onscreen interactions. The higher the stakes, the more intense the chorus, while a lost life will bring everything to a quietening halt. Other sounds are tied to specific environments, allowing for the designers to introduce a natural progression to the soundtrack apart from the player's performance.

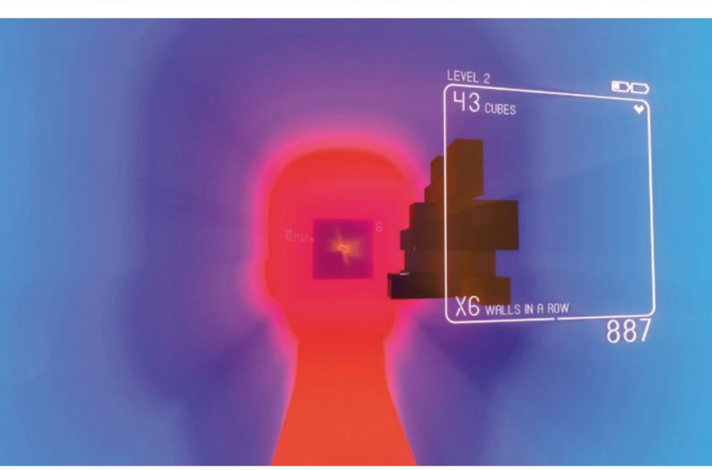


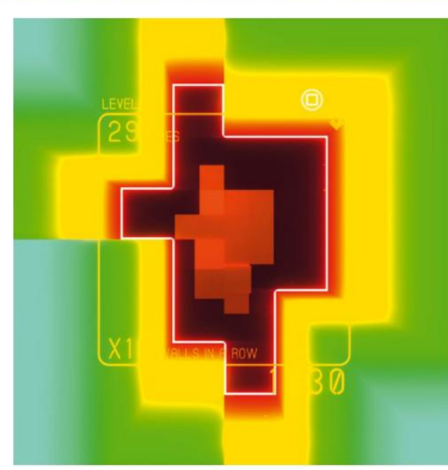






ABOVE **An earlier version of the game, which used motion trackers to follow the player's head in order to achieve the 'looking' effect, was nominated as an Indiecade finalist.**
TOP LEFT **You have a generous few seconds in which to align your cube during the wait for the wall to arrive. Hold the X button and the game speeds up, flinging the wall toward your cluster.**
LEFT **Producing trailers for VR games is an ongoing challenge. Kokoromi recently launched a 360-degree YouTube trailer, making it possible to look around the 3D environment using the mouse, as a taster.**
BELOW **Bonus points are available for rotating the cluster with a minimal amount of inputs, for speeding the wall toward the cubes, and for achieving a perfect fit by fine-tuning alignment with your head.**
BELOW LEFT **Scoring in the game is finely calibrated. You earn just a handful of points for a clean pass-through, a figure that scales only modestly according to your multiplier chain**

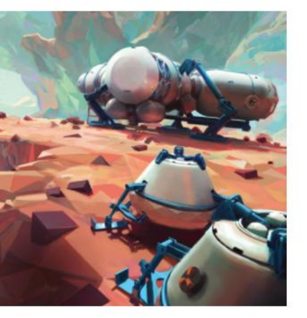








Developer/ publisher System Era
Format PC
Origin US, Canada
Release 2016



ASTRONEER

Giving ground control to Major Tom

Survival games aren't generally known for their sunny outlooks. Most have their moments of levity, of course, but the struggle to maintain existence in the face of fierce opposition – both natural and otherwise – is rarely a cheerful one. *Astroneer*, then, is something of an anomaly: it's a game with a sense of boundless optimism that might seem unlikely in the circumstances it presents, and yet is wholly befitting of the pioneering spirit it espouses.

In truth, staying alive is not your chief concern on these procedurally generated planets. You have a job to do, after all. "You're part of a group of explorers who are looking for rare and valuable resources," **Paul Pepera**, of developer System Era, tells us. "Once you land, it's up to you to start your base of operations and gather the basic [materials] that allow you to survive. Eventually you'll be able to craft complex equipment, which will enable you to go even farther and get harder-to-find resources."

If the core gameplay loop is familiar, there's a wildcard in the form of a large handheld device that gives your astronaut the power to deform terrain. The process is intuitive and satisfyingly tactile, with audio effects that sound less like a noisy excavator carving through chunks of rock, and more like an ASMR video of someone shifting around on a soft, yielding leather sofa. With gentle pops as objects are unearthed and the light crackle of surface grit tumbling into the hole, the process of digging is a remarkably pleasurable sensation. A good job, too, since you'll be doing quite a bit of it.

For Pepera and fellow artist **Adam Bromell**, this mechanic emerged organically

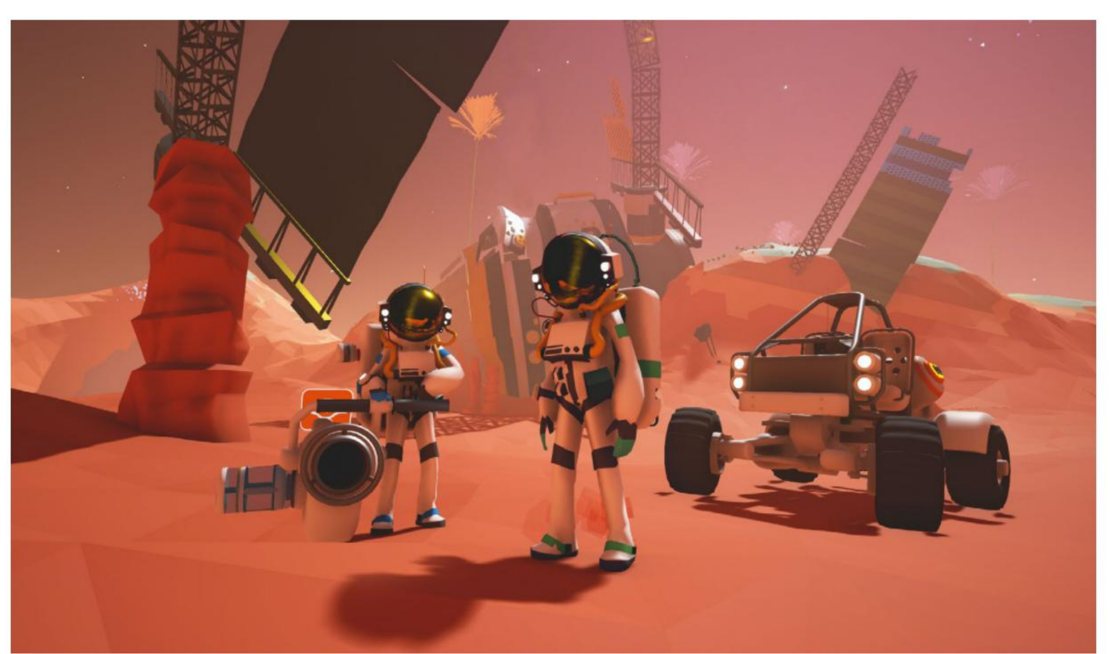


***Astroneer*'s deformation tech is being refined all the time. Since the build System Era showed off at GDC, it now looks more chiselled and natural**

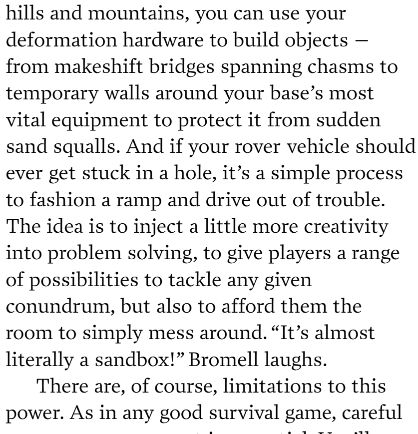




TOP **There will be an upgrade tree, Pepera explains. "You'll [unlock] more powerful deformation tools – you can slap one on the rover and drive around and deform at the same time."** ABOVE **Certain modules that use nuclear fission will have to be buried underground**







Though plant life isn't generally a cause for concern, Bromell suggests that the flora might not always be friendly should you disturb its habitat



from early art projects. After years producing complex and detailed designs for blockbusters including *Assassin's Creed Unity* and *Splinter Cell: Blacklist*, Bromell in particular had enjoyed the comparatively fast pace of iteration with low-poly 3D art. "I decided to do some space[-themed] stuff because I was really into space exploration," he tells us. "I was inspired by what NASA was doing, and watching Chris Hadfield on the ISS." He sent a mockup to Pepera, and the two began to bounce ideas off one another, falling in love with the fantasy of being an astronaut alone on a distant planet. The simple style made sense from a practical point of view, too. "It's just been four of us for a while," Pepera says, "so we wanted an art style that was achievable with a very small team. This polygonal, geometric look to the game is striking, but it also [lets] Adam and I quickly hammer out content for it, as opposed to something that's more triple-A realistic."

As he put together this early concept, Bromell found an unlikely inspiration in the very tools he was using to make the image. He'd been using 3D sculpting and painting tool Mudbox to create the terrain for the astronaut to stand on, when, as he puts it, "a lightbulb suddenly went off". What if, he wondered, the player could interact with the gameworld in the same way he was doing? Even before the studio had an engine up and running, it had an engaging central hook.

So, yes, just as you can burrow beneath the surface of the planet, or even tunnel through hills and mountains, you can use your deformation hardware to build objects – from makeshift bridges spanning chasms to temporary walls around your base's most vital equipment to protect it from sudden sand squalls. And if your rover vehicle should ever get stuck in a hole, it's a simple process to fashion a ramp and drive out of trouble. The idea is to inject a little more creativity into problem solving, to give players a range of possibilities to tackle any given conundrum, but also to afford them the room to simply mess around. "It's almost literally a sandbox!" Bromell laughs.

There are, of course, limitations to this power. As in any good survival game, careful resource management is essential. You'll require a regular supply of energy for your deformation tool and for your vehicle, otherwise you risk getting stranded away from base. Dying isn't quite the penalty it might be in other survival games, but you still have to face consequences for your mistakes. "Imagine you've gone on a two-night expedition and you've brought a rover with you that has enough power for those two days," Bromell says. "If you're in a cave spelunking, say, and you happen to die down there, then you've lost everything that was down there with you. But in terms of brutality, it's more *Minecraft* than *DayZ*."

For the game's Early Access debut, at least, there will be a fourplayer co-operative mode, which should allow efficient teams to progress much quicker, assuming they can resist the temptation to keep sculpting rock phalluses. "Imagine you're playing with a friend, and they're deforming the terrain while you're building a solar panel that will help power them so they can keep working," Pepera explains, citing precisely the blend of ingenuity and strong teamwork with which this small team has carved out a beguiling and personable debut. ■

> ***"I was inspired by what NASA was doing, and watching Chris Hadfield on the ISS"***



Goal diggers

System Era is still fine-tuning one final layer of motivation, the ultimate aim that drives each Astroneer. Players will be able to share their discoveries with Earth, though the developer has yet to work out exactly how to present that concept. "They're sent out there because there's a gold rush going on in space," Bromell says. "And one Astroneer is going to be better than another in terms of the value of the resources they've collected, but in terms of that overall idea we haven't nailed it down 100 per cent." Meanwhile, Pepera says the studio is prepared to respond to player feedback: "If there's an appetite for a more hardcore version of the game, that's something we could update the game with."

A smart drag-and-drop interface lets you see what you're carrying in your Astroneer's pack at a glance, and allows you to access items quickly





Developer/ publisher Epic Games
Format PC, PS4
Origin US
Release 2016



PARAGON

Can Epic sell an obtuse game genre to the console crowd?

At last, some honesty. The MOBA's march from PC to console has been an odd one, with most developers almost embarrassed by the term. The imminent *Overwatch* and *Battleborn* borrow from the MOBA style guide, but are wrapped in a familiar FPS framework to make them more appealing to a wider, console-owning audience. *Paragon* is, purely and unashamedly, a MOBA, its only concession to the console crowd being a shift in perspective from the top-down genre standard to an over-the-shoulder thirdperson view.

That means *Paragon* comes with baggage – and a crucial task on its hands. Unlike Blizzard and Gearbox, Epic Games must sell an entire genre, rather than an accessible twist on it, to an audience who may only know it for eye-poppingly large tournament prize pools and one of the most impenetrably arcane lexicons in videogames. It must do so quickly and immediately, too, since crossplatform play pits PS4 beginners against PC vets. What sort of on-ramp does *Paragon* give to those for whom jungle is a kind of rave music, and thinks a ward is part of a hospital?

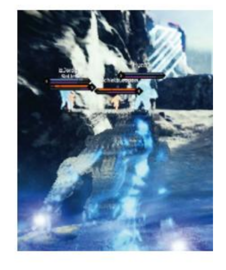
Even one-sided stompings take half an hour, and a more even match can be twice as long

Actually, quite a good one, even in the current, early-access build. Two short video tutorials do a fine job of explaining not only the objective, language and mechanics, but also the genre's flow. You quickly understand that death is to be avoided at all costs, which is perhaps the most important lesson a console player has to learn. Respawn times extend as the match progresses, something that will be anathema to a *Call Of Duty* player, if not quite to a *Battlefield* one, but as soon as you see an enemy turn tail and run the second they lay eyes on you, a teammate and a band of AI creeps closing in, you understand you're playing quite a different game.

Other gameplay systems will be more familiar. Aside from the R2 basic attack, all your abilities are governed by cooldowns – a recognisable presence in a sometimes hostile genre – and characters are effective at different ranges, which is communicated by an aiming reticle that changes colour when an attack is going to connect.

Back at your base you can assign cards to spare inputs (D-pad directions; a shoulder button; thumbstick clicks). At the start, you'll use health and mana potions, but as you level up you'll be able to use more complex ones that offer passive buffs that extend, rather than refill, your health and mana meters, or shorten cooldown times. Cards are the game's beating heart, its point of differentiation from the genre template and, to Epic, the primary business model. While you'll earn packs of cards from simply playing the game, more can be purchased for real money. Since the game is free to play and all characters are given away gratis, it's Epic's only source of revenue.

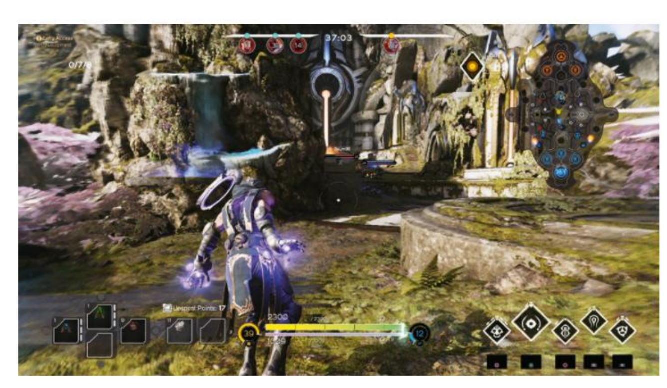
While *Paragon* is commendably easy to get into, it's hard to stick with. The sole map is enormous and matches take an age. Even one-sided stompings take half an hour, and a more even match can be twice as long. Momentum comes in short bursts – a cluttered teamfight, an assault on a tower – and despite the smart introductory videos and the character-specific tutorials on Epic's forums, beginners will spend most of a match's lengthy runtime wondering what they should be doing, and where. Character movement is slow, too, and while Epic has sped the action up slightly since early builds, console players will find themselves pining for an even brisker pace. Epic's honest adherence to the conventions of its genre may be commendable, but also show why the likes of Gearbox and Blizzard have chosen to evoke the spirit of the MOBA rather than follow it to the letter. ■



Jungle is massive

While there's much about the MOBA that's impenetrable to newcomers, the jungle is perhaps the biggest stumbling block, and it's telling that Epic's graceful tutorial videos stop short of explaining what it's for. *Paragon*'s map has four jungles, bridging the gap between the map's three lanes. AI enemies spawn in camps on timers of varying lengths: the basic type reappears every two minutes and offers up experience points, while more powerful variants also award buffs when killed. These boosts last for two-and-a-half minutes, unless you die – in which case their effect will be passed to your killer. Baffling stuff at first, but you'll pick things up quickly using our preferred tactic: finding the strongest player on the team and sticking to them like easily killed, quite annoying glue.







ABOVE **Travel mode, activated by squeezing the left trigger and pressing X, is the best way of getting around, but must be used carefully. Get hit during it and you'll be rooted to the spot for a few seconds.**
RIGHT **Ultimate abilities are the game's Supers – bound to the longest cooldowns and capable of dealing the heaviest damage. Startup animations are lengthy, however, giving opponents time to escape the blast radius.**
BELOW **The first thing you need to get a handle on is your chosen character's effective range. Then you need to learn everyone else's. If you don't like the odds, you can call for help from teammates using D-pad shortcuts**







TOP **The tutorial video suggests you group up with AI creeps to ensure you're not the lone target when you run into trouble. This souped-up variety spawn late in the game and make for powerful allies.**
ABOVE CENTRE **The jungle's buff-giving AI monsters, and the cover afforded by its canopy, mean it's a tempting place to hang out – though doing so leaves the three lanes, and your bases, exposed to enemy assaults.**
ABOVE **The character select screen has been designed with the novice in mind. Categories denote their recommended playstyles, while some are marked out as being suitable options for beginner players**





Developer/ publisher Lucas Pope
Format PC
Origin Japan
Release TBA



RETURN OF THE OBRA DINN

Insurance adjustment on the high seas

Lucas Pope's obsession with anti-aspirational vocations continues with *Return Of The Obra Dinn*, a game in which you play as a 19th-century insurance loss adjuster. Unlike the designer's previous game, *Papers, Please,* which placed you in the musty environs of a fictional yet grimly recognisable Eastern European border checkpoint in the 1980s, here the location is somewhat more exotic, even if the work itself is just as monotonously gruelling. The Obra Dinn is an East Indian merchant ship which was lost at sea, somewhere around the Cape of Good Hope, while en route to the Orient. One October morning in 1808, the forsaken vessel drifts into port. The return is marked, not with rejoicing, but with red tape. As a trusty red-blooded insurance adjuster for the East India Company's London Office, you embark on the ship and, against a soundtrack of creak and slop, you begin to figure out what happened to the 60-odd crew members (a number scaled back from Pope's original, ambitious crew of 86), many of whose bodies litter its decks and nooks.

Pope blends his idiosyncratic storytelling style with a certain degree of player agency

It's a drama told through the lens of mundane vocation, then, in much the same way as *Papers, Please*. But in contrast to Pope's earlier work, there's a sprinkle of the mystical here. A magical pocket watch, found in a casket dredged from the sea, means that, whenever you happen upon a corpse, you're able to trigger a flashback. This transports you to the precise moment of the person's death, be it from mutiny or monster. In this way, from a few select frames of action, you begin to fill in the gaps in the story. You might find a withered skeleton slumped behind a locked door, for example, and wind back the clock to discover he took a knife to the back from a disgruntled shipmate. Or you could find a body lying in a bed, shot to the temple with a blunderbuss. In each case you must trace the line of implied action to discover what happened to the person in their final moments – and, crucially, their identity.

People who appear in one corpse's flashback may reappear later, and much of your time is spent memorising faces and relationships as you work to fill in the blanks. These blanks aren't only metaphysical. As the narrative chains between clues you're able to add a note to the logbook to mark each discovery until, hopefully, every crew member is accounted for. In this way, Pope skilfully blends his idiosyncratic storytelling style with a certain degree of player agency. It's possible to fill in the logbook incorrectly, a fact-finding mistake that will likely cause later, spiralling issues with your conclusions.

The difficulty of the detective work is compounded by the game's striking monochrome aesthetic, which has been described, with Pope's blessing, as 'dither-punk', using variously spaced dots in order to achieve shading effects. The art style – a tribute to Apple Mac titles of old – certainly contributes to the sense of melancholy and anachronistic drama (and nullifies what might have been too grisly if rendered in full colour and contour). It also helps to differentiate *Return Of The Obra Dinn* from the glut of 8bit-inspired indie games on the market – titles using an art style that Pope, of course, helped to popularise. But the lo-fi look also makes identifying crew members rather difficult. Costume design goes some way to differentiate one sailor from the next, but with such a sizeable cast, it's clear Pope still has some way to go before every face is effectively recognisable. It's a tension between aesthetic and gameplay that he must find a way to solve in the coming months, lest the game's fascinating conceit fall apart. ■



"'Dither-punk' is a cool term," Lucas Pope says of the art style, "and I wish I'd thought of it"



A random fix

One unlikely issue that Pope has encountered while attempt to mimic vintage Mac titles with *Return Of The Obra Dinn* relates to the way in which indie games travel in 2016. On Twitch and YouTube, those crucial channels for carrying a game beyond the realm of the cognoscenti, video is compressed. This technique blurs the lines of the precise dither art style, and can make images illegible. To lessen the impact of the problem, Pope has introduced a random element to environmental dithering patterns. Compression, according to the author, has the most devastating effect when dithering uses a regular pattern to create shades and textures. Randomness doesn't fix the issue, but it does improve the situation, ensuring the game holds up much better in video form.

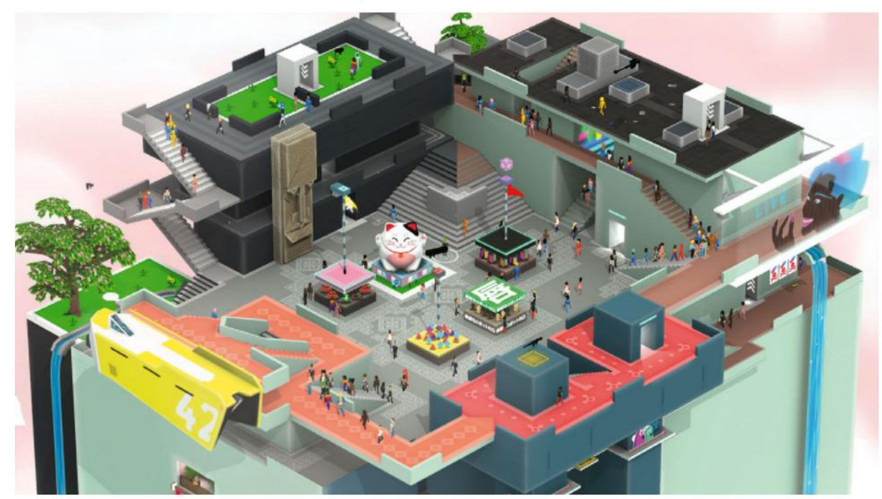


TOP **The game uses an inversion outline style lifted from the 1987 Mac shooter *The Colony*, whereby lines are drawn in black when they appear in the light, and white in the dark.**
MAIN **Pope initially worked at 640x360, introducing a zoom function to allow players to focus more closely on characters' faces to aid with recognition. He found it painfully clunky, however, and now the game is built at a robust 960x540.**
RIGHT **Some of *Papers, Please*'s pleasingly nippy pace has been somewhat lost with the transition to 3D. You are responsible for exploring 3D space, so it's possible to stall the drama if you miss a valuable clue**

TOP ***Papers, Please* drew much attention for its socio-political theme, with players experiencing the alien pressures of life as a compassionate immigration inspector. What *Obra Dinn* lacks in similar political punch, it certainly makes up for in mystery.**
ABOVE CENTRE **The ship gradually opens up its halls and corridors as you find each cadaver. Initially only a single door is open for exploration, but with each flashback, new areas become accessible.**
ABOVE **In the game's earliest stages it's clear that death came to the Obra Dinn via mutiny or disagreement between the crew. You soon discover that other factors were also at play**

TOKYO 42

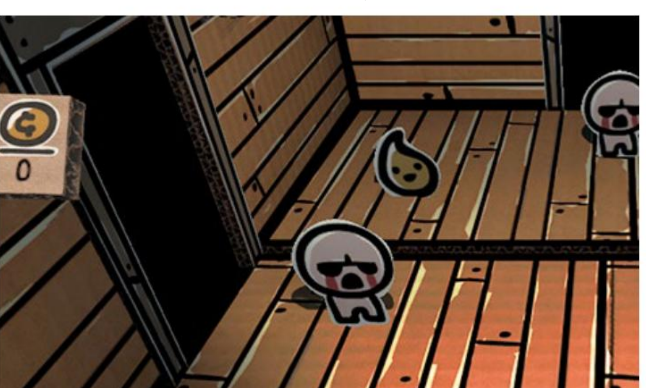
Developer SMAC **Publisher** Mode 7 **Format** PC **Origin** UK **Release** 2017



Frozen Synapse**'s developer turns publisher for this stylish cyberpunk action game set in a futuristic Japan. It's as vibrant as it is violent, with an isometric perspective reminiscent of a more colourful take on Bullfrog's original *Syndicate*. Here, though, you're in direct control of a lone assassin, sneaking, leaping and shooting your way through a large open world as you try to uncover a conspiracy. The sprawl, meanwhile, is stripped back for the game's competitive multiplayer mode, which takes place on small, densely populated maps. Packed with disguises, secrets and athletic gunplay, this could be one of 2017's most dazzling debuts.**

THE LEGEND OF BUM-BO

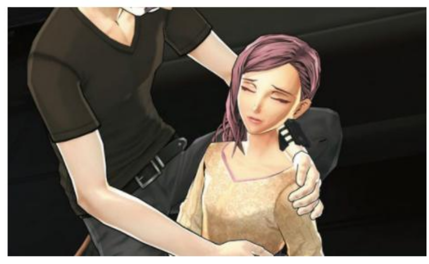
Developer/publisher Edmund McMillen **Format** PC **Origin** US **Release** TBA



The Binding Of Isaac **creator's next game is another collaboration with James Id (*Fingered*) and composers Ridiculon. Described by McMillen as "a turn-based puzzle RPG-type thingy", it appears to be a spinoff of sorts – Bum-Bo was a floating-head familiar that would vacuum up coins and chase enemies in *Afterbirth*. Its stages will be randomly generated, while its title and logo suggest it will again indulge its maker's fascination with all things scatological.**

ZERO TIME DILEMMA

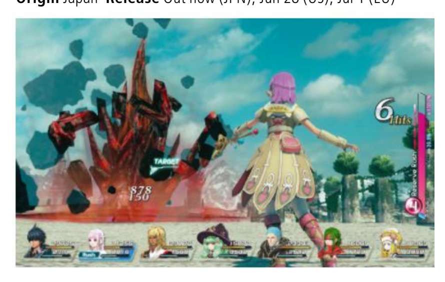
Developer Chime **Publisher** Aksys Games
Format 3DS, Vita **Origin** Japan **Release** June 28



Kotaro Uchikoshi has concocted a mystery even more twisted than predecessor *Virtue's Last Reward*. The story is told in fully voiced cinematics, fragmented into chunks of 90 in-game minutes. With its characters' memories erased after each one, player and protagonists must reassemble the timeline.

STAR OCEAN: INTEGRITY AND FAITHLESSNESS

Developer Tri-Ace **Publisher** Square Enix **Format** PS4
Origin Japan **Release** Out now (JPN), Jun 28 (US), Jul 1 (EU)



Marking *Star Ocean*'s 20th anniversary, the sixth game in Tri-Ace's series cuts back on cutscenes in favour of seamless dialogue – a decision that, along with a 20-hour runtime, has proved divisive in Japan. Over here, a flab-free ARPG could be just the ticket for the fallow summer months.

GONNER

Developer/publisher Art In Heart
Format PC **Origin** Sweden **Release** TBA 2016



A scruffy art style belies an inventive platform-shooter. One hit sends hero Ikk's head and gun pinwheeling away from his body, but decapitation isn't the end: reunite your torso with your skull and you've got another shot. Should you die, you get to try a new head, with each boasting individual perks.

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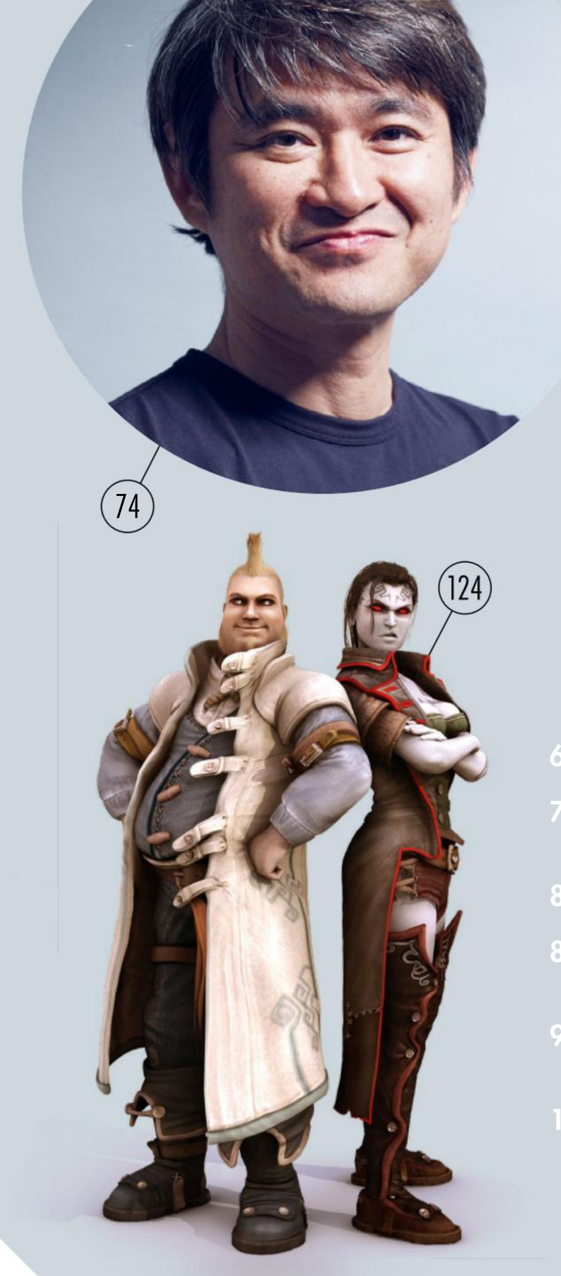
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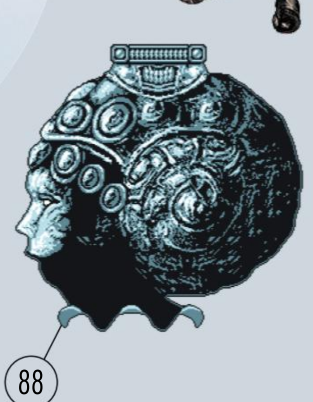
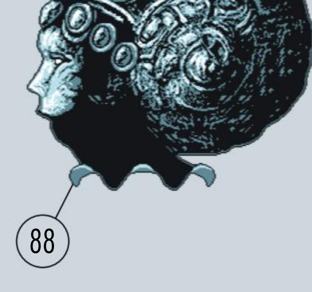
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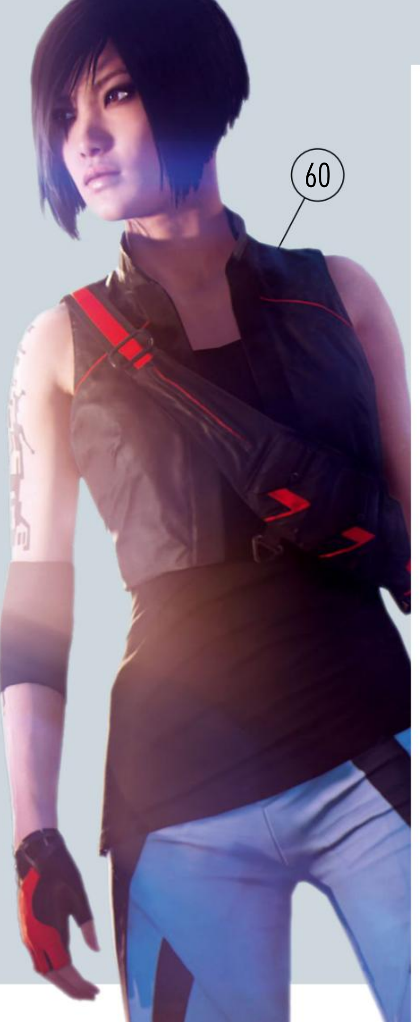
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VIDEOGAME CULTURE, DEVELOPMENT, PEOPLE AND TECHNOLOGY





ON REFLECTION

ON REFLECTION

DICE takes stock of Mirror's Edge's failings and sets about redefining an entire genre

By Ben Maxwell

That the original *Mirror's Edge* didn't make a greater impact on the trajectory of firstperson shooters remains one of its more mystifying aspects. Sure, other mystifying things about it include ugly cutscenes, risible boss fights, bad acting and Faith's unchecked fixation on turning valve wheels, but at its core DICE's parkour effort had – still has – the potential to revolutionise firstperson locomotion. We've seen niche standouts such as *Dying Light*, and a little wall-running seep into *Call Of Duty*, but *Mirror's Edge* still feels unique in its focused commitment to releasing players from the shackles of the traditional FPS.

And then there are those visuals. Despite being nearly eight years old, the game's stylised environments still hold their own against modern releases, DICE's bold use of stark whites and contrasting accent colours remaining as striking today as on release. And in Faith, DICE created a protagonist as distinctive as Lara Croft or Nathan Drake, but significantly more progressive ▶


CYCLONtech



Game *Mirror's Edge Catalyst*
Developer EA DICE
Publisher EA
Format PS4, Xbox One, PC
Release May 24 (US), May 26 (EU)

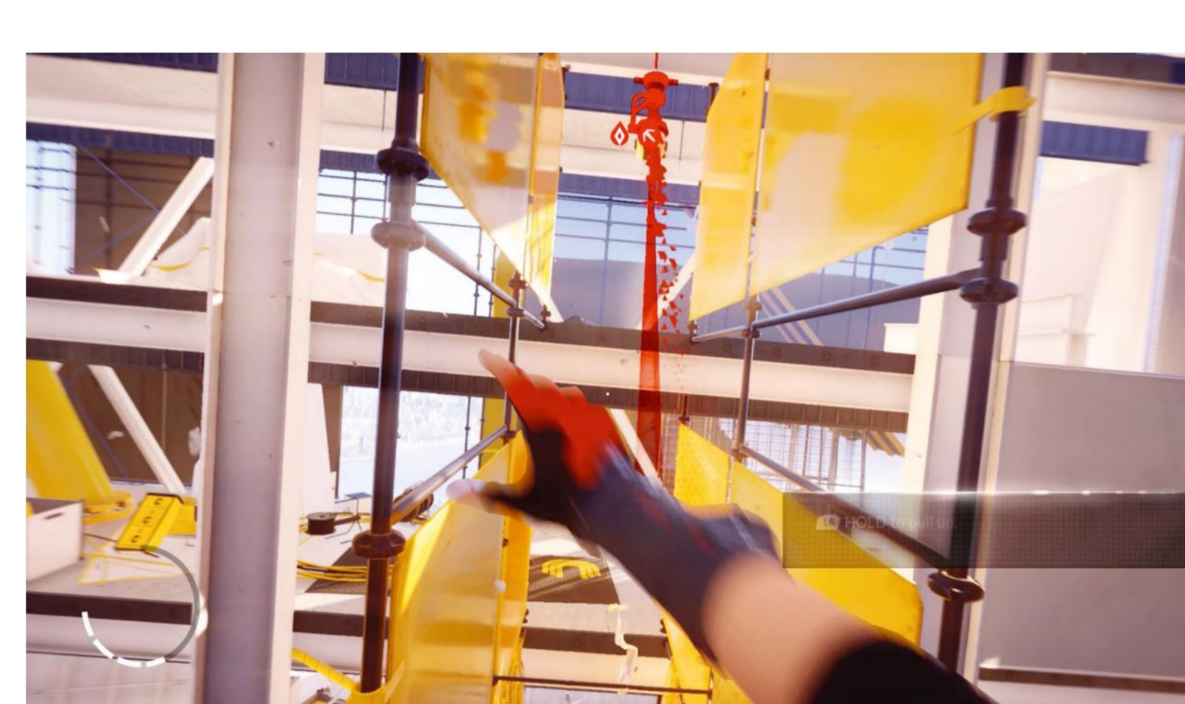
than either. All of which is to say, problems aside, *Mirror's Edge* remains a pretty tough act to follow.

"It still holds up today," *Mirror's Edge Catalyst* lead producer **Amo Mostofi** agrees as we sit in an unfinished corner of the top floor of DICE's new offices – a space that's practically begging for some ill-advised parkour. "It's still breathtaking the first time you play it. When my friends find out I'm working on *Catalyst*, and I show them the first game, they're like, 'This was really made that long ago?' It still resonates, and it's just a constant source of inspiration for our team."

Why, then, hasn't it inspired more studios to follow in Faith's footsteps? "I think it's a very hard game to copy, if you want to use that word," design director **Erik Odeldahl** tells us. "The tech behind the movement is a very difficult thing to do. Visually, I love the look of the first game, and I love how our game looks. There's a lot of stuff from the first game that we've built on for *Catalyst*: the aesthetics aren't the same, but they're clearly built on the same foundation, and the same thing is true of the gameplay. For the soundtrack, we've got Solar Fields again. So there's a heritage there, and we need to build on these things."

The result is a dazzling reimagining of Faith's world. Released from incarceration after the two-year sentence handed down to her at the end of WildStorm Productions' prequel comic, the runner emerges into the City Of Glass – a stomping ground that has

"I LOVE THE LOOK OF THE FIRST GAME, AND HOW OUR GAME LOOKS. THERE'S A HERITAGE THERE, AND WE NEED TO BUILD ON THESE THINGS"



Early in the game, a visit to an under-construction skyscaper shows off one of *Catalyst*'s most vertiginous locales, as well as Faith's mag rope, which pulls her up through the building's shell



ABOVE **While still gleaming and rather clinical, the City Of Glass manages to exude more humanity in *Catalyst*.** LEFT **Few of Faith's cutscene acrobatics are out of reach to players during the game**



Catalyst's controls feel immediately responsive, but Faith becomes even stronger and faster as you upgrade. Swifter ladder climbing proves particularly welcome

changed during her absence and become less familiar – with plenty to learn. It's an origin story setup that creates room for a more natural progression curve than the original game's.

"The first game really threw you in there, right?" says Odeldahl. "Here, Faith has to rediscover the city and prove that her skills are still there – or at least coming back – along with the player. That's been a clear design intent from the beginning: we're not just telling the player, 'Hey, you're the most awesome runner in the City Of Glass.' We're letting the player *become* the most awesome runner. The gradual unlocking of the city is a big part of that. The initial spaces you play in are easier, but if you play for a couple of hours or finish the main part of the game and then come back to those early areas, there's tons there for you to explore. We've made areas so that you can return to them not just with new unlocked abilities, but also as a more skilful player. You can see things you didn't see early on because reading the environment becomes second nature."

That environment is a sprawling, shimmering metropolis whose angular, unnervingly clean architecture was inspired by the high-rise shapes of cities such as Shanghai and Tokyo. Those influences manifest subtly, and *Catalyst*'s take on the City Of Glass retains the first game's blend of familiarity and eerie geographical dislocation. But there's more life here this time around: you're able to spot pedestrians and traffic hundreds of feet below, listen in on conversations taking place in the various buildings you clamber over, and even – occasionally – encounter large crowds of people.

A more convincingly populated space, then, if no less austere. But *Catalyst*'s open-world design also means that it has to function as an entertaining parkour course no matter where the player chooses to head off. Balancing these two aspects has proven to be one of the team's most daunting challenges.

"It's been really, really hard," Odeldahl admits. "There's not a single object in the city that hasn't been hand placed. There's no randomness anywhere. If you look at other free-roaming game worlds, there's often a bit of that in there, but every vaultable object and slide in the City Of Glass is hand placed."

It's a remarkable achievement given the sheer scale, especially when it exhibits such naturalism in terms of town planning. But that drive to build a convincing space has created problems of its



own. "For a free runner like Faith, every street is a river she has to cross, which is why we built new tools in for her – the mag rope allows you to swing across streets and stuff like that," Odeldahl explains. "It's not just a random addition to the move set – if we want to open up the city and provide places to explore, we need to let Faith cross gaps that wouldn't be possible otherwise. It's been a lot of work, but I think the attention to detail has paid off."

The mention of a mag rope might raise concerns among fans of the original, given its potential to introduce unnecessary complication into a game about the purity of instinctive free-running. But in practice, by opening up new potential runs which would otherwise be severed by an impassable gap, the device serves to help maintain Faith's flow rather than diminishing it. It's also wielded in moderation, only able to clasp onto suspended security cameras – a design decision that can make its use feel contrived on occasion but, crucially, also unobtrusive. In any case, leaping off the side of a building at the end of a run then squeezing a button to fire your mag rope and swing across into another burst of movement is both exhilarating and entirely in keeping with the spirit of the series.

In fact, everything in *Catalyst* has been built around allowing Faith to maintain her momentum, no matter what situation she finds herself in. The newly introduced Shift power has two functions: it works as an always-available dodge move that can be used in conjunction with an analogue stick to leap out of harm's way during combat, and it also allows Faith to instantly get back up to full tilt (the longer she moves uninterrupted, the faster she becomes) after a bad landing or awkward clamber.





FROM TOP **Design director Erik Odeldahl; lead producer Amo Mostofi**

"THE FIRST GAME REALLY THREW YOU IN THERE, RIGHT? HERE, FAITH HAS TO REDISCOVER THE CITY AND PROVE THAT HER SKILLS ARE STILL THERE"

Performing wall-runs, vaults and slides builds your Focus meter, and as long as it isn't fully depleted, every bullet will miss you. But stumble or get knocked down, and you'll have run for cover as armed enemies suddenly get their eyes in. Your own attacks are also more powerful if strung together with parkour moves, and the game generously corrects your aim to ensure that any roundhouse kick you launch from a wall will find its target – a useful consideration given that Faith's acrobatic fighting style means you often won't be looking directly at your aggressors.

Faith now has strong and standard attacks, too, each mapped to their own button, and there's no longer a separate disarm move – it just happens as a consequence of the combos you perform. Combining the heavy attack with a nudge on the analogue stick allows you to shove enemies in a particular direction, staggering and knocking them into each other. The ability to direct your ▶



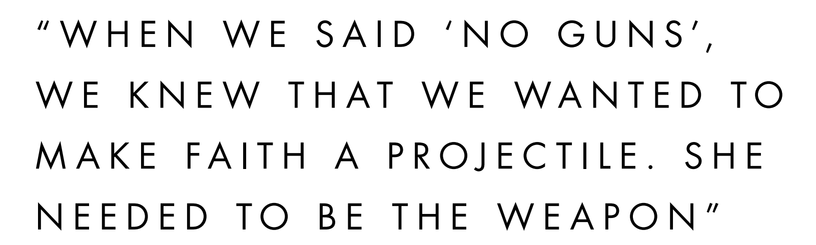
FAITH IN FAITH

In an industry that, even today, regularly struggles with its depiction of women, Faith stands out as one of gaming's better female role models. "She was such a strong character in the first one, but I hope people see her as a role model for everyone," Mostofi says. "Yes, she happens to be female, but we've always just treated her as a human being – we're just writing a person. I think that shone through in the first game, and I think it shines through in this game. Chris [Emgard] and his team have done a tremendous job of writing an individual, a person. I really hope that everyone can look at her and go, 'She's kick-ass and I would quite like to be like Faith'. I would definitely like to be as athletic as Faith, but I'm far too lazy to do what she does. So instead I go to the gym twice a week and pretend I'm athletic."



blows adds a sense of physicality and control that was absent from the first game's one-button setup, and means that combat is as much about mastering your body and limbs as is the case when negotiating the city at speed. You can launch heavy attacks while on the move, but doing so will bring you a thudding halt, so it's often better to use the normal attack – which does less damage but doesn't break your flow – when you're in a hurry, and leave enemies disoriented as you disappear across a neighbouring rooftop or into a doorway. This combination of systems – strong and weak attacks, flow-reliant invincibility, and the ability to use enemies' bodies against them – results in a uniquely potent feeling of power as you run rings around combatants, but one tempered by a continual sense of naked vulnerability.

"From the start, when we said 'no guns', we knew that we wanted to make Faith a projectile," Mostofi says. "She needed to be the weapon. She uses her hands, her feet, her body – anything that causes damage to these guys. So we built that into the



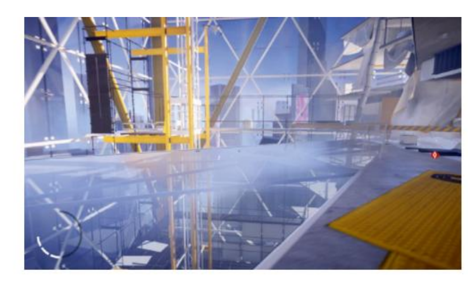
"WHEN WE SAID 'NO GUNS', WE KNEW THAT WE WANTED TO MAKE FAITH A PROJECTILE. SHE NEEDED TO BE THE WEAPON"

movement system. As long as you're moving, it means that you've gained Focus, which means your enemies can't really do too much damage. Doing a wall-run, a jump then a roundhouse kick and knocking a shock protector into a guardian and watching them hit the wall and fall down is very satisfying. So that was the system we knew we needed to work towards. That element of making her a projectile wasn't straightforward, but we had a plan for it – it was the hand-to-hand combat that was the real challenge."

"As long as you're in that flow, any attack you perform from a parkour move is way more powerful than a regular attack," Odeldahl says. "And you can unlock stuff in the character progression tree to make that stuff even more powerful. But what happens when you stop? Or the enemies *force* you to stop? We don't want you to feel like you've lost your speed, so the Shift move actually started from figuring out how we could let players quickly gain speed even from a standstill. We don't want to turn Faith into somebody who's too reactive, just standing still and blocking. Instead it's more about dodging out of attacks and creating a position of advantage for yourself."

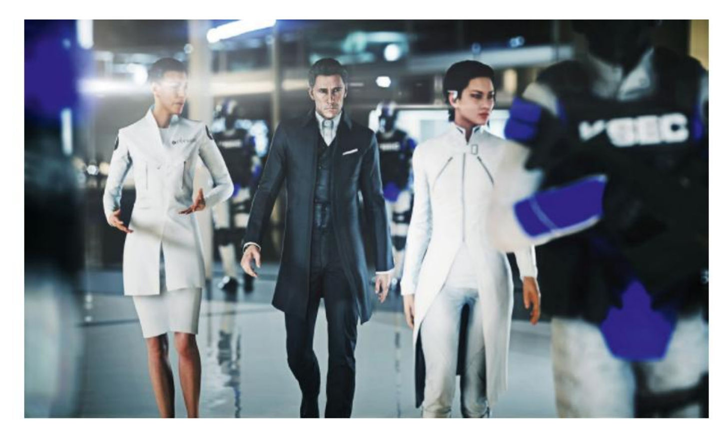
There's a moreish puzzling aspect to combat – albeit one that requires improvisation and quick reactions – as you string together moves in such a way that ensures there's never too much distance to your next target, that tougher enemies are stumbled at the right moment so you can pick off weaker combatants, and that Faith's relentless momentum is never interrupted. The idea of such a graceful fighter resorting to using something so brutish as a gun is inarguably crass. And the progression tree which Odeldahl ▸



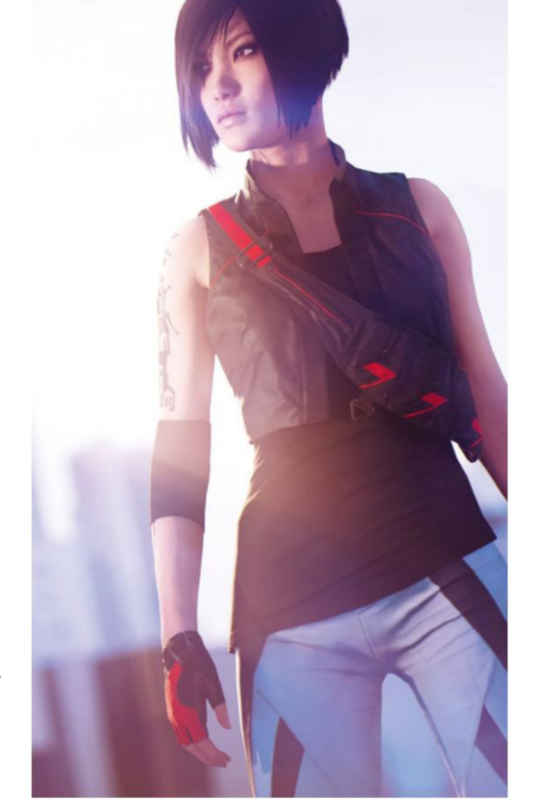


FAN SERVICE

The first game was one of the main reasons Mostofi and Odeldahl joined DICE. "It's always been my dream project," Odeldahl says. "I started here nine-and-a-half years ago, working on *Battlefield*, like most people here. But I saw development of the first *Mirror's Edge* from the sidelines, and I've always been so amazed by what it is. It's still unique." Mostofi continues: "I'm a huge *Battlefield* player, but *Mirror's Edge* was always this unique, innovative piece of tech, this amazing game."



ABOVE **Antagonist Kruger is founder and head of the shady K-Sec corporation. Faith is in opposition to his plans, but she's not above taking on morally dubious jobs in her own line of work.** BELOW **Busier streets lend a greater sense of place to the city, and you'll even descend down to them on occasion**



RIGHT **Faith's core design has required little updating, and still feels fresh today.** BELOW **The city's various districts are distinguished by differing architectural styles and accent colours. It's a stunning setting**

mentions bears branches that improve her free-running potential (less speed lost when sliding, or a faster shimmy up drainpipes) as well as her efficacy in combat. Intel on particular types of enemy allows Faith to hit harder and target weak spots, and one ability allows her to quickly get behind an opponent in order to more easily make them stumble with her heavy attack.

"Doing hand-to-hand combat in firstperson is *hard*," Odeldahl says. "And a lot of work has gone into that. It's been time consuming and difficult, but we've never wavered. We've never said, 'OK, fuck this – just give her a gun'. [Removing guns from the equation] is something we really wanted to do, and it's something that really fits with her character. I think staying on target with that has really paid off for us."

Fighting enemy AI is all very well, but the game's real challenge will come from its suite of asynchronous multiplayer components. Hackable billboards display your customisable tag in other players' worlds, while times set on the DICE-built Dash missions – which feature both in the main campaign and its



VIEWPOINT

In a game so focused on momentum, is the team concerned that players will rush through the game's environments without fully appreciating them? "When we built the city, we set out to create a space that people will want to explore," Odeldahl says. "Yes, it's a game about flow, almost about reaching a zen-like feeling. But we had the city up in really rough shape very early, so I've been playing in it for years now. And for me, the whole exploration aspect of the game forces you to stop and look sometimes, and that's super-rewarding. As soon as you diverge from the main path, there's so much to explore and see."

periphery – will populate leaderboards as players compete to be the fastest. But it's the game's user-generated time trials and location tagging that will prove the greatest draw. So long as you're not in a mission, or being chased by patrolling enemies, you can switch into creation mode by pressing right on the D-pad. From there, it's a simple task of selecting time trial or Beat LE (Location Emitter) and setting waypoints with the tap of a button.

If you're creating a time trial you just need to run the route you want to create, dropping checkpoints as you go. Once you're done, you can save it as a public challenge or one only visible to your friends, and then give it a go in order to set the time to beat (represented by a customisable 'Echo' that functions as a ghost lap). Beat LEs, meanwhile, are one-off markers that you can drop in hard-to-reach areas and then challenge other players to make it to the same location. Competitors won't be given the exact location when they take on the challenge (identified, like time trials, by icons that sit where the creator initiated their creation), and will have to search for the Beat LE within an area on their mini-map. Outwardly frivolous, this UGC's potential shoudn't be



"DOING HAND-TO-HAND COMBAT IN FIRSTPERSON IS *HARD*, AND A LOT OF WORK HAS GONE INTO THAT... WE'VE NEVER WAVERED"

underestimated – we lose more than an hour of our day at DICE's offices re-running and perfecting a short time trial that we throw together in one of the early areas.

"You race against time, against Echoes, and you can restart instantly," Odeldahl explains. "At its core, *Catalyst* is a skill-based game. You can become really, really good at *Mirror's Edge*, and creating your own time trials to show that off is really satisfying. Dashes have a start point and end point, but there are no restrictions on how you get between those, and that feeds in again to the exploration element of the city, finding the fastest path and improving your skills."

Listed as bullet points, the multitude of elements that form this more ambitious take on *Mirror's Edge*'s singular formula risk coming across like distracting noise. But while the mileage in zipping back and forth without the hectoring tailwind of the first game's linear progression is something that will need a concerted playthrough to properly assess, Faith has always deserved better than to be hemmed in. In our review of the original *Mirror's Edge*, we bemoaned the absence of a sense of achievement from landing predefined jumps, a lack of sustained momentum, and too little altitudinal variation. *Catalyst* confidently tackles all of these issues, but perhaps its greatest trick is the way it hands players the freedom they've craved ever since first laying eyes on the City Of Glass's sea of gleaming white skyscrapers, but does so without compromising or diluting Faith's unique appeal in the process. ■





Q&A

CHRISTOFER EMGÅRD

Writer and narrative director, DICE





Christofer Emgård (left) is a writer who started out in theatre and movies, and also spent time reviewing games in Sweden, before joining Ubisoft Massive (then Massive Entertainment) ten years ago. He spent seven years with the studio, working on titles such as *World Of Conflict*, before joining the *Mirror's Edge Catalyst* project three years ago.



Did you have any concerns about taking the project on in light of the first game's criticisms?
We had a pretty clear idea of what those criticisms were, and how to improve on them. I was brought on board after the project was greenlit, and they [DICE] knew that they wanted to know more about Faith, who she is, and why she does the things that she does. And also that she should be more involved in the world, and the choices she makes have more of an impact in that world. So it was pretty clear what the intent was, and then it was a case of trying to realise it.

In among all that, Faith's characterisation was already strong. How did you feel about getting to work with those foundations?
Humbled! Despite the criticism of the first game, there's no doubt that she's had an impact on the industry just by being the way she is and looking the way she does. Going into her past and trying to understand her better has been one of the most enjoyable parts of creating the storyline for this game. I've worked with her for almost three years now, and she's changed a little bit along the way, but I'm very happy with the outcome.

Did the success of Lara Croft's reboot and origin story have any bearing on your work?
I wouldn't say what *Tomb Raider* did specifically inspired us, but I think both [Crystal Dynamics] and us are approaching this in relation to what's happening with storytelling in general. TV has evolved over the last ten to 15 years, and we have more complex character studies now. Way back, Lara Croft was much more flat – she was an adventurer with a curvy body, and her deeper motivations weren't really that interesting to anybody. In all sorts of mediums we're seeing that kind of simplistic character becoming rare – I even miss them in a way, because I think there's a nice simplicity to that kind of storytelling. But I think with Lara Croft and for what we've now done with Faith, we've been inspired by that idea of going deeper into who these characters are, and thinking about if these types of heroes could exist for real. And if they did, what would be their background, and how would they function? Because obviously they're involved in some level of violence and so on – how do they handle that?

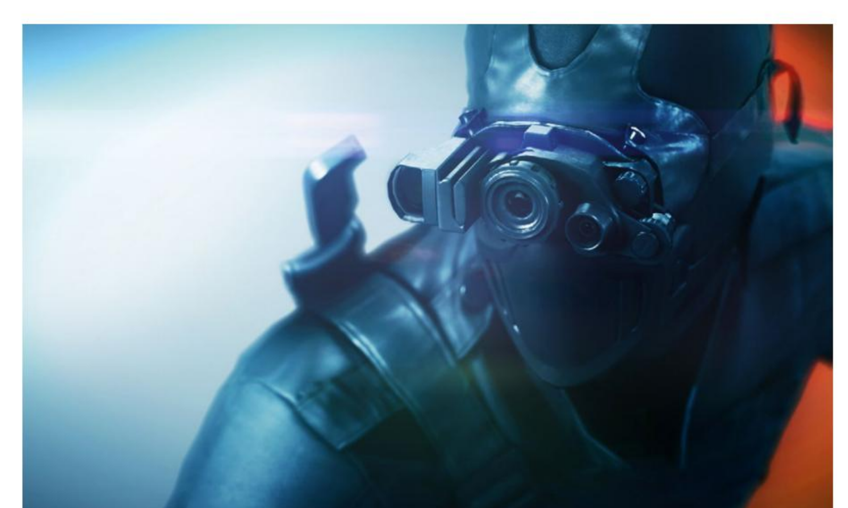
How involved were you with the casting process?
Coming from movies and theatre, I love the realisation part – the acting and all that sort of stuff. I used to do more directing when I was at Massive, but we had a wonderful director called Tom Keegan working with us on *Catalyst*. He and I started on the project at almost the same time, so he's been deeply involved in the script development process. When the time came for casting, he and I looked at all the actors for the different roles together and then made our picks. Usually when we find someone it's pretty clear that they're the right person for the role, but with that said, I think we were lucky this time around. We got a wonderful cast, and the chemistry between them is something I'm very pleased with.

In a game so focused on freeing the player, do you think there's more friction between the narrative and open world play?
Yes, there is. That's a constant… maybe it's a tradeoff. But not necessarily. I work very closely with the game design team. The main impact that a game like this has on storytelling involves pacing. It's up to the player: you play a main mission, and then maybe go out and explore for a while, or you go straight into the next mission. But as a writer I can't know what your next choice will be. There are different ways to approach that. ■



LEFT **Black and red are the most popular outfit colours in this particular near future. Runner leader Noah (near left) has more than a little Nathan Drake about him**

ABOVE **Runner Vision now has three settings: off, traditional, and a new GPS-like setup which displays routes across the city.**
LEFT **Later enemies, with the ability to move quickly, present stern challenges**





“GENTLEMEN, WE’RE OFF ON A PIRATE ADVENTURE”
VICE

“QUITE SIMPLY THE BEST LOOKING GAME EVER MADE”
PLAY MAGAZINE

“I’M FOAMING WITH KLEPTOMANIACAL GLEE”
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COLLECTED WORKS
TETSUYA MIZUGUCHI

MEGALOPOLIS: TOKYO CITY BATTLE
Developer/publisher Sega **Format** Arcade **Release** 1994

SEGA RALLY CHAMPIONSHIP
Developer AM5 **Publisher** Sega **Format** Arcade **Release** 1995

MANX TT SUPER BIKE
Developer AM3 **Publisher** Sega **Format** Arcade **Release** 1995

SEGA TOURING CAR CHAMPIONSHIP
Developer AM5 **Publisher** Sega **Format** Arcade **Release** 1996

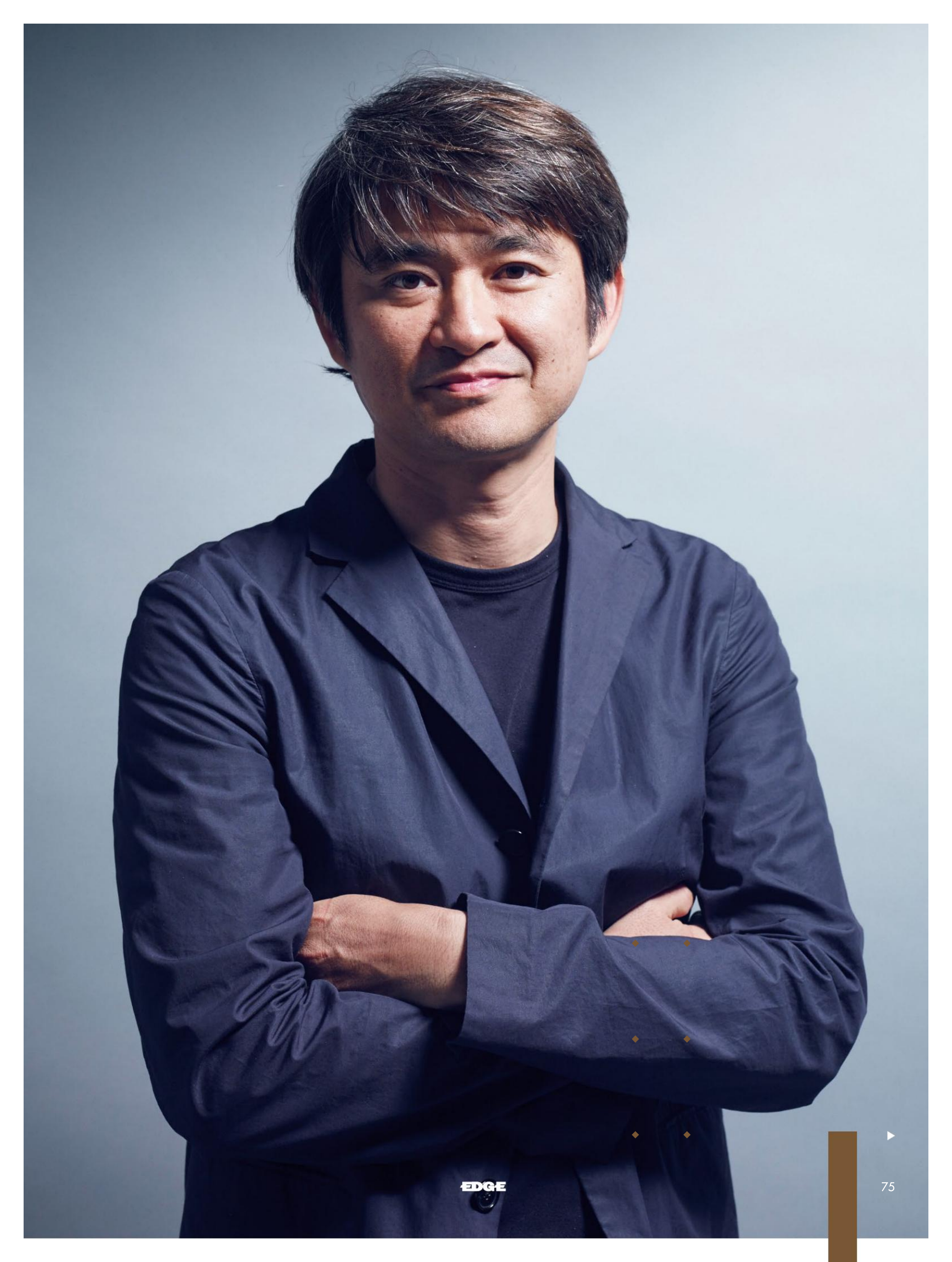
SPACE CHANNEL 5, SPACE CHANNEL 5: PART 2
Developer UGA **Publisher** Sega **Format** Dreamcast, PS2 **Release** 1999, 2002

REZ
Developer UGA **Publisher** Sega **Format** Dreamcast, PS2 **Release** 2001

LUMINES
Developer Q Entertainment **Publisher** Ubisoft **Format** PSP, PS2, PC **Release** 2004

The man behind Rez's VR resurrection reflects on a journey through games that began in the arcades

By Simon Parkin



Growing up in Sapporo, the capital city of Hokkaido, Japan's northernmost island, **Tetsuya Mizuguchi** dreamed of becoming a professional baseball player. He spent the majority of his time outdoors, training on the field, till, in the fourth grade, he became friends with another boy whose parents owned a toyshop. Mizuguchi would visit the shop and gawp at the colourful Atari videogame boxes that busied the shelves.

Around this time, he and his friend started frequenting the local arcade. A nascent hobby soon became an obsession; the pair would begin skipping classes in order to play. "I wasn't book smart," he says. "I wanted to have more real life experiences; to become street smart." In art, however, Mizuguchi found a subject as compelling as the arcade. He became diligent in his studies, earning a place at Nihon University in Tokyo to study media aesthetics, a pioneering course about the intersection of art and technology.

Three decades later, this interest has defined the designer's oeuvre, which stretches from the luxurious physical experience of the racing game arcade cabinets of his earliest work (*Sega Rally, Manx TT Super Bike*) through the intricate fusion of music and games found in *Space Channel 5, Lumines* and the seminal *Rez*, which will be given new life later this year as a PlayStation VR title. Here, he describes his journey to date, and the games that have defined his life's work.

MEGALOPOLIS: TOKYO CITY BATTLE

Developer/publisher Sega **Format** Arcade **Release** 1994

"When I was at university a friend of mine showed me a copy of The Bitmap Brothers' *Xenon 2: Megablast* on the Amiga. It was like a shock to me, opening my eyes to the new possibilities within the medium. It was one of those eye-popping moments in my life, when I realised a brand-new perspective on what videogames could be as an art form. It's worth mentioning because of what came later.

Sega was my first real job out of university. I had an unorthodox route to working there, to say the least. Even though during my university years I was thinking about games and playing them, I still didn't think the videogame industry was going to be my profession. One day I visited the arcade and saw this huge cabinet in the corner, an *R360*. It could rotate and the player had to be strapped in with a harness. I thought: 'What the hell is this, and who the hell makes it?' I saw the name Sega on the side and immediately went to their headquarters in Tokyo.



"SEGA TOLD ME, 'YOU ARE KIND OF OUT THERE, BUT WE NEED SOMEONE WITH CRAZY IDEAS'"





Megalopolis: Tokyo City Battle helped to set a trend for non-interactive motion-based arcade attractions that is still in place today

I walked straight up to the receptionist and said to her: 'I want to work for Sega.' She patiently explained to me that I needed to go through the proper channels, send in my application, come in for an interview and so on. I asked her how I should go about that and, after that, went home and applied. During the interview process I told the interviewer that the current games on the market were not the types of games I wanted to make. They felt dated to me. I wanted to make games with the future in mind. The interviewer said to me: 'You are kind of out there, but we could probably use someone like you in our company. We need someone with crazy ideas.' That's how I got my job at Sega. It was a small company at the time; probably fewer than 200 employees. They made me a planner, but my first project was not a game development project.

Sega and Namco owned a mini amusement park called Joypolis. It was larger than an arcade but smaller than Disneyland. They had an attraction there called AS-1, a simulator ride in which people would take part in a futuristic flying-car chase through Tokyo. We handled the visuals for the ride, as well as balancing the motion of the cabinet's hydraulics. At the same time, in the UK, we were partnering with a virtual reality company called Virtuality. I worked in the research department for that project – so things have really come full circle with the forthcoming release of *Rez Infinite*.

Anyway, I was happy because I didn't want to make the kind of 2D arcade games

that were being worked on at the time. They were so stale and boring to me. I wanted to work on the games of the future, so these projects suited me well. They kept me busy for quite some time. Then, when realtime polygon counts began to increase for the first time, I knew that 3D game making was the place I needed to be.

SEGA RALLY CHAMPIONSHIP

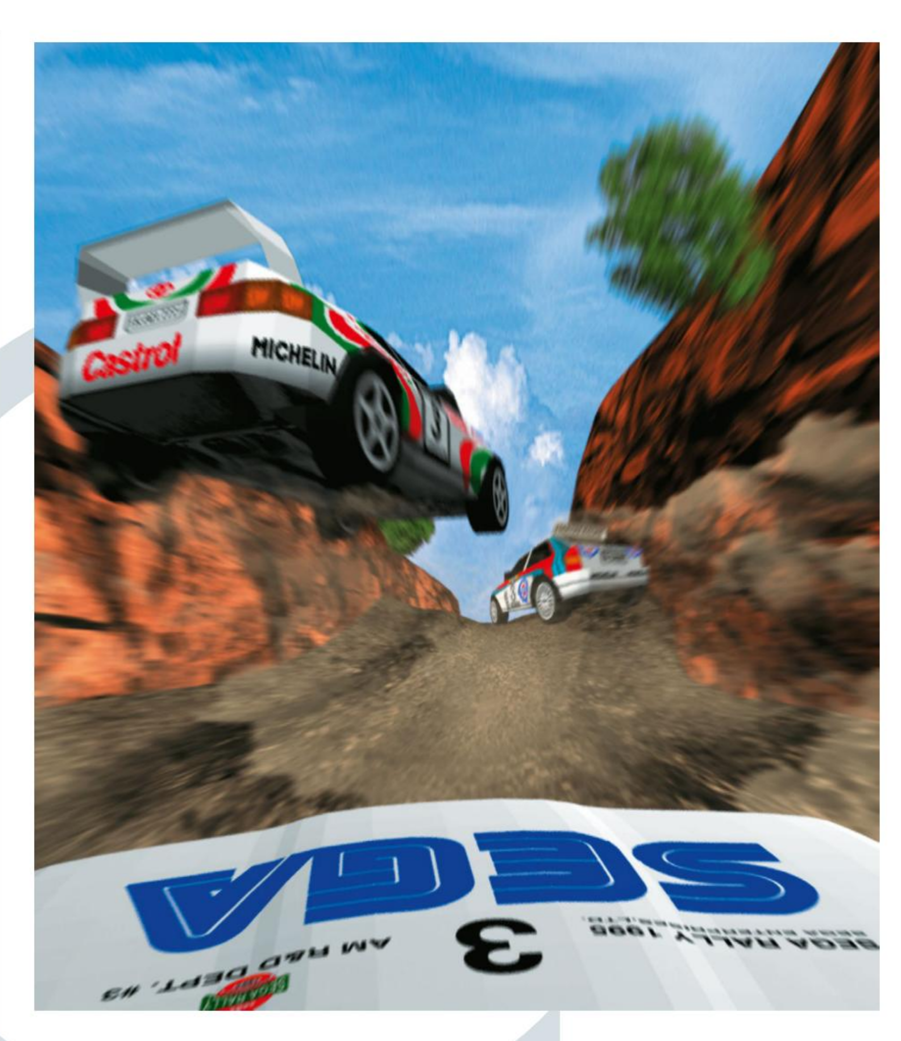
Developer AM5 **Publisher** Sega **Format** Arcade **Release** 1995

I wanted to make a rally game. The opportunity came with the arrival of polygons. Suddenly we had textures and we could do so much more in the genre. With textures we could go to the desert, or offroad – things that hadn't really been possible before. I pitched the game to the executives at Sega. They gave me a flat-out 'no'. They told me that no rally game had ever been anything close to a success. They even said that rally games are jinxed. I was so passionate. I had it in my mind as to how it would be designed. I begged them to give me a chance. They said: 'What if it doesn't work out and we lose money?' I told them that if it was a failure I would quit the company and they wouldn't even have to pay me for the work. They told me that was an incredibly irresponsible thing to say. I told them I didn't care. I had to make this game.

I think it was this passion that, in the end, won them over. They relented and myself and about ten other people were given a chance to make the game. Now, we were all in our early to mid-20s. None of us had designed a game before. None of us had even experienced racing before. The executives told us that there was no proof or hint of success here. That's when I argued that, in order to perfect the experience, Sega should allow us to carry out some research – location scouting and so on. We wanted to follow a rally, and interview the drivers, the kind of research one might carry out for a movie.

Again, the executives were incredulous. Travelling anywhere to make a game was unheard of at the time. They told me that, if the game was a success, I could take a holiday and do some travelling. We fought that through as well. I told the executives, if the company wouldn't allow us to go, we would go on our own dime. At that point, the company said: 'OK – this one time we'll allow you to travel for research.' It was all thanks to us pushing through, encouraging each other and, eventually, managing to make things happen.

The game was a big success, as everyone knows, but my immediate boss argued that this was actually down to the resistance that we'd faced in trying to get the project off the ground. He told me that it was all because the executives had pushed back, so the team came together and worked harder as a result. ▶











Sega Rally Championship was popular in its Saturn guise, but it's at its strongest in the arcade, where it's one of the highest earners in history



Mizuguchi points to the extreme amount of research that goes into his projects as a factor to help them stand out, and *Space Channel 5* was born following extensive study of musical theatre, along with every one of Michael Jackson's music videos

MANX TT SUPER BIKE

Developer AM3 **Publisher** Sega **Format** Arcade **Release** 1995

SEGA TOURING CAR CHAMPIONSHIP

Developer AM5 **Publisher** Sega **Format** Arcade **Release** 1996

After the success of *Sega Rally*, the company gave me a little more room to make my next projects. I worked on *Sega Touring Car Championship,* where we got to visit Mercedes, Alfa Romeo, all of these other car manufacturers. It was amazing. *Sega Rally* took about 11 months, which was a pretty short amount of time. Sega wanted us to come up with an idea for what was next and deliver it much more quickly. For *Sega Touring Car Championship* we were only given about five or six months. We had to rush it and haphazardly put out a game. It wasn't a huge success. I learned an important lesson there, about ensuring that games are given enough time to fully develop.

Around that time we started work on *Manx TT Super Bike*, a motorbike racing game for the arcades. That involved some research too – all the team got motorcycle licences. It was better in terms of the length we had to work on it – closer to a year – but I learned another important lesson on the project. You see, I had a very clear idea of how I wanted the game to feel. The lead programmer told me that what I wanted to achieve just wasn't possible. There was a little back and forth over what would be the better way to go. I ended up respecting the lead programmer's decision. The game shipped but, even now, it doesn't sit well with me. It wasn't executed the way I had envisioned.

The lesson I learned was that, if you have a vision, you need to push through to the end. If you don't, you ultimately just make everyone else unhappy. That experience had a huge after-effect on developing *Space Channel 5* and *Rez*. It gave me the certitude to push through with my visions for those games, even when there was resistance.

"IF YOU HAVE A VISION, PUSH THROUGH TO THE END OR YOU JUST MAKE EVERYONE ELSE UNHAPPY"







Neither *Manx TT Super Bike* nor *Sega Touring Car Championship* were satisfactory to Mizuguchi, for different reasons

SPACE CHANNEL 5, SPACE CHANNEL 5: PART 2

Developer UGA **Publisher** Sega **Format** Dreamcast, PS2 **Release** 1999, 2002

The kernel of the idea for *Space Channel 5* was actually someone else's, initially: Takashi Yuda's. He had an idea to create a traditional music video that rolled as the player tapped the buttons correctly, in time with the music. We started thinking about how we could make it fun and bright and quirky. That's when all of the layers came together and the idea for what we released was born. For our research we watched all of the music videos that Michael Jackson put out. We spent so many hours going to musicals, everything from Stomp to Broadway – every musical we could afford tickets to! Musicals were an ideal reference material because they merge song and narrative. They create this kind of synergistic spiral that keeps the crowd going. We wanted to transport the same experience into something interactive, using a call-and-response dynamic. We did so much research, and that's how the elements that you see in my games were injected.

Michael Jackson was a huge game fan. He came to visit Sega quite often. There was a thread of communication between him and us. We sort of got lucky. During one of the visits we were about a month out of mastering *Space Channel 5*. We

showed it to him; he said: 'How can I be a part of the game?' We were so close to launch and there was just no time to make it happen. The ideal scenario for us was to save this for a sequel. But who is going to say 'no' to Michael Jackson? So, in the end, we went back to him with a plan for a cameo appearance. I wasn't sure if he was going to be OK with what we proposed, or if he was going to ask for a larger-scale involvement. But he was totally happy with our idea. He really just wanted to be a part of the project, I think. As soon as we had the 'yes', the team worked on it for about two weeks. Such a short amount of time.

I told Michael that I needed vocal performances to put in the game: 'Hey!', 'Chu!' and all the rest of those exclamations. He recorded himself and sent me a tape. The problem was he spoke incredibly softly. We put the effects in the game but they felt totally wrong because the main character has very high energy levels in her vocal recording. So I had to email him back to ask him if he'd re-record the vocals with higher energy! Finally he sent another tape. It was better, but still not quite as high-energy as I'd hoped.

REZ

Developer UGA **Publisher** Sega **Format** Dreamcast, PS2 **Release** 2001

During the time that I was working on the rally games I travelled a lot. On one of the trips I was led to a Street Parade in Zurich Switzerland in 1997, with 300,000 people gathered in the city centre for a concert. It blew me away. I think it appealed to the art student in me! The merging of sound and light, and the meaning behind it all perfectly synched in my head.

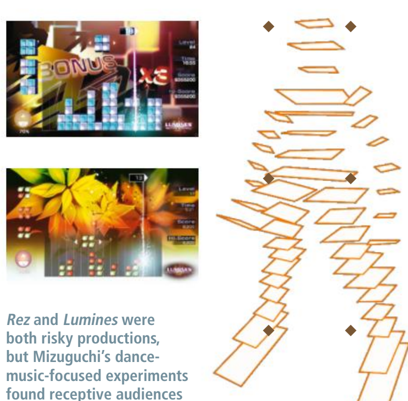
I'd had a number of thoughts brewing in my head for years and years. The marriage of game and music, creating music as you shoot down enemies. When the home console technology caught up, and came to a point where we felt able to bring the idea to life, I knew it was time. I wanted to make a game that could put the player into a trance-like state.

Again, we had to do a lot of research because there weren't really any games like this at the time, or at least, not enough to consider it a genre. I took my team clubbing. We also visited Taiko drumming festivals and watched hours and hours of recordings of street musicians. It wasn't just a case of listening to the music. We also took notice of the shapes and colours, and how we felt as the performance progressed. These were all things we wanted to translate into our game.

The basic idea was that shooting would produce sounds, which could then synch with the music. Quantization was key to ensure that the sounds players made fell in step with the music. This would mean any player could play the game 'in time', as it were; the rhythms of play would always be synched, and play would feel good. When we first made this work, it felt like magic.







Rez and *Lumines* were both risky productions, but Mizuguchi's dance-music-focused experiments found receptive audiences

LUMINES

Developer Q Entertainment **Publisher** Ubi **Format** PSP, PS2, PC **Release** 2004

You know, I didn't miss having my games in arcades. They have a very limited audience, mainly young males. There are so many constraints to deal with too. You have this short game limitation, which means that you can't really give people proper narrative or stories. For me it was a relief to move away from those restraints.

I remember when the Sony PSP was announced. I could see it was a strong audiovisual device and so I immediately started imagining what kind of game could work well with the hardware. I knew that, with the PSP, players would be able to play my game at any time, in any place, so it was a case of figuring out what kind of game would work well with that context.

I thought about making a puzzle game that used music. It was a new idea, I think, at the time. I put together an incredibly small team. This was a very special project for me. Nobody believed in that game. I guess because it was a new kind of game on a new kind of hardware. When I came to E3 that year, I showed people my game. Everybody looked very sorry for me. They said that there was no market for puzzle games these days. The told me that there was no market for music games, either. In the end they were proven wrong. *Lumines* sold well. I had a confidence in the game and, in the end, it worked out. It proved all those lessons from years ago to be right. If you believe in your vision, and stick by it, things will work out." ■



Play nice

Five years and 30 apps in, Toca Boca is growing up – and taking its players with it

By Nathan Brown

Toca Boca co-founder Emil Ovemar

We've reached peak colour. The room in which we meet Toca Boca co-founder **Emil Ovemar** is painted from floor to ceiling in bright, pastel yellow; down the hall is the world's reddest room, its most blue, and two of its pinkest. Vintage toys line the shelves. There's a gachapon dispenser in the cafeteria. There's an adult-sized go-kart, an office pug, and beanbags are everywhere. Toca Boca's impossibly colourful new Stockholm office feels not like a development studio but a child's fantasy playroom, blown up and spread over a few thousand square feet.

The concept of the tech startup office-cum-playground is hardly new, of course, but this is about more than Silicon Valley Peter Pans with basketball hoops above their bins and scooters for navigating halls. Since 2010 Toca Boca has been making apps for children aged between three and six. Its first product launched on the App Store in 2011, and in the five years since it's released 30 apps and notched up over 100 million downloads. Now, it's broadening its reach, targeting kids between the ages of three and nine, and expanding its business beyond mobile app stores. But the principles are the same: the only way to make things for kids is to adopt a child's perspective on life, and if that means filling a meeting room with armchairs that are so big that a six-foot adult can only just dangle their feet over the edge, then so be it.

Ovemar met his co-founder Björn Jeffery in 2009 in the R&D department of The Bonnier Group, Sweden's largest media company. Their employer had tasked them with finding a way to make money out of digital content in the smartphone era, and Ovemar – then a parent to children aged three and five – felt that kids were the answer. After convincing the higher-ups with a prototype, the pair set up Toca Boca in 2010, focusing squarely on three-to-six-year-olds and the newly launched iPad.

"When I looked at what was in the App Store, and what my kids were playing with on my iPad, I felt no one was taking it seriously," Ovemar tells us from across a chunky table in the yellowest room in



One of Toca Boca's earliest apps, ***Toca Kitchen*** **launched in 2011, and was successful enough to spawn a sequel**



Chris Lindgren (below) joined Toca Boca as a play designer. She now works on the studio's vital kids research programme







The kids are all right

Focus testing is important in businesses of all stripes, but it's vital to Toca Boca, where the need to view things from a child's perspective means that, well, you need to frequently seek the perspective of a child. "It's always an eye opener to come out on a kids test and meet the audience," says kids research manager **Chris Lindgren**. "For a couple of weeks afterwards you look at what you're doing in a different way. It's easy to be in the office and design for yourself, but you have to remember who you're making things for."

Traditional user-testing methods don't apply here. You can't sit a three-year-old down in front of a product and ask for their thoughts on a specific feature. Instead you have to watch what they do and try to learn from it. Not all sessions are digital: Toca Boca regularly tests concepts before a line of code has even been written, taking pen-and-paper prototypes or familiar toys (Playmobil sets were used early in *Toca Life*'s development) to a free-play session to see what the kids choose to do with them.

Sessions are often held at Toca Boca's kid-friendly headquarters, but are more commonly conducted at preschool and after-school clubs, with just two kids in the room – enough for them to feel relaxed, but not as distracted as they'd be in a large group. Then the tester simply points an iPhone camera at the tester's hands, and watches what happens.

"You have to be careful asking questions to kids," Lindgren explains. "Especially those that have just started school: they're just getting used to the world of right and wrong, and if you ask too specific a question, they might try to find the 'right' answer. It's them being polite – but then other times they're not polite at all! They'll just reach for the Home button and look for something else to do." There's nothing so brutal as a child.

Sweden. "Adults were making games, books and videos, because that's what's adults do. But I saw how my kids were using their iPod Touches and my iPad. They'd build a cinema for Lego Minifigures, or use FaceTime to play hide and seek.

"I saw how they were using these native apps to play with the device as a toy. They didn't see it as a scary piece of technology: it was just another way to play. We came to the conclusion that we should make digital toys. Using all these capabilities – mic, camera, touchscreen – how can we use this piece of technology to play?"

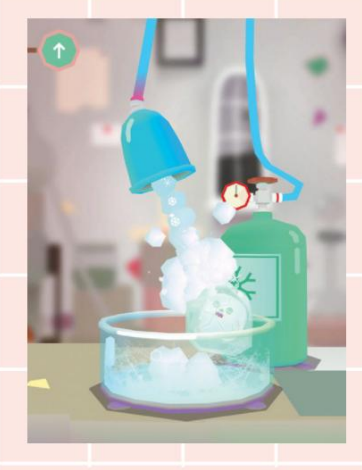
Speaking to Ovemar, it's clear that Toca Boca benefited enormously from its early decision to focus on a largely unexplored sector of the app market, and from the way its early experiments led to it devising a set of principles for the design and distribution of its products that in turn helped establish its brand. The studio puts a child's perspective at the centre not just of its interior design, but everything it does: entire projects have been cancelled after one of Toca Boca's regular testing sessions (see 'The kids are all right'). Humour is important, but an app should be funny to all age groups for the same reason – Ovemar points to the way Dreamworks weaves jokes for adults into family films as an example of something Toca Boca would never do. Nor is it interested in fantasy worlds: only reality is universally relatable, so Toca Boca products are set in hair salons, on train tracks and in schools. Diversity is a particular point of focus for Toca Boca in 2016, but since the start it's avoided gender boundaries, making games both boys and girls can enjoy.

"I wanted to define digital toys," Ovemar says. "The store was empty: there were no shelves. We needed to define what shelves should exist in a digital toy store, then fill them with products. Why would we limit ourselves to [following] physical toy stores, and how they divide everything into pink and blue aisles? Apple has been very helpful, and listened. Now we have age ranges in the Kids category [on the App Store], but it doesn't do Boys and Girls categories. That, for us, was important."

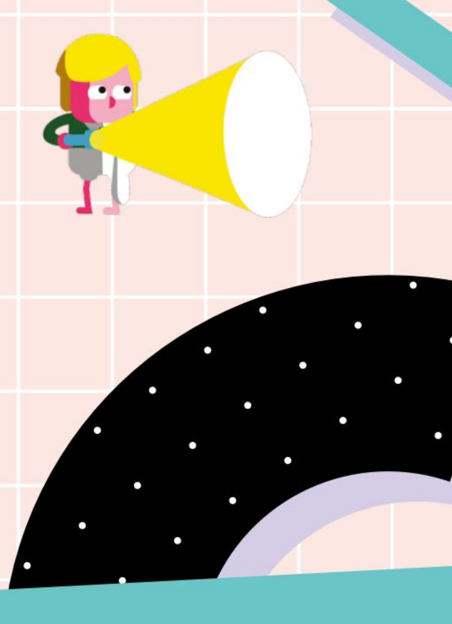
The phrase 'digital toy' is key. Toca Boca is not, and has never been, a game developer. Ovemar and his staff say they make toys, products, experiences or apps – but not games. It's a key distinction. Videogames may be essentially toys, but they come with a set of conventions and rules that have no place in a company targeting such a young age group.

There are no game designers at Toca Boca – at least not in name. Instead, there are play designers, and Ovemar admits staff that have joined from traditional game development have had to be coached out of their old mindsets. He recalls, for instance, that the initial concept for *Toca Hair Salon* involved a queue of customers, each asking for a different colour and style. The player would then be scored on how closely they adhered to the request. Anyone who has ever tried to coax a three-year-old into doing something specific, with precision, will know that it is a fool's errand. "They don't *have* to do anything – they can do whatever they want," Ovemar says. "Without adding incentives, we have to trust that kids are creative, that they want to explore things without being pushed to beat a high score."

Toca Boca's work varies wildly in style, subject and theme, but all 30 of its apps are defined by a very pure celebration of the pleasure of play. They don't do challenges, progression systems or difficulty spikes. There can be no tutorial text in a product aimed



By teaching the periodic table, *Toca Lab* strays perilously close to the dreaded 'edutainment' tag. It's playful enough to get away with it



"We have to trust that kids are creative, that they want to explore things without being pushed to beat a high score"

for children as young as three. The user interface must be simple enough for a toddler to grasp. And with no level structure or IAP paywall with which to gate off content, the entire toybox must simply reveal itself to the player as they muck about with it.

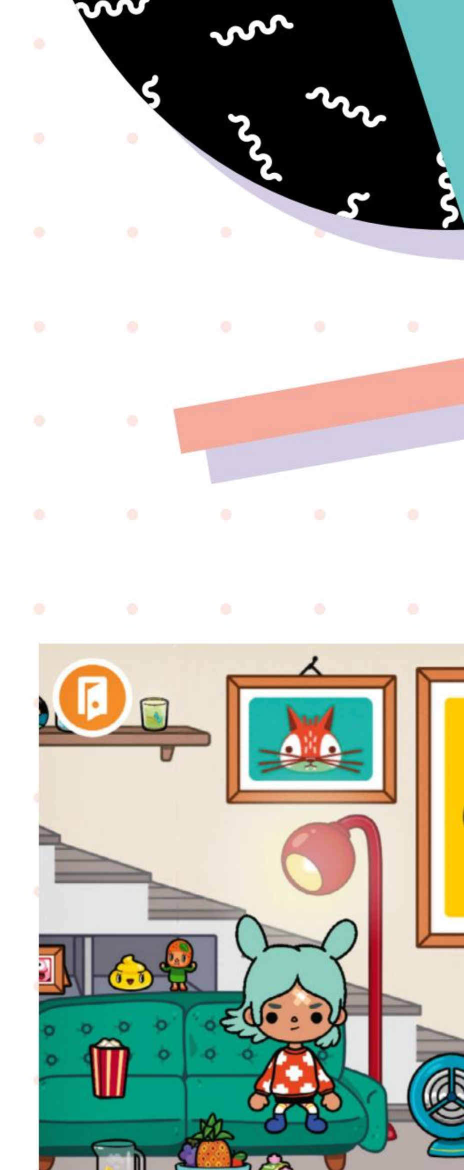
It's a focus on the fundamentals that is mandated by Toca Boca's target market, but whose appeal spreads far wider than that. Glance at the App Store reviews of any Toca Boca app and you'll find enthusiastic missives from players who almost apologetically admit to their advancing years. "No jokes, I am almost an adult," reads one review of *Toca Kitchen 2*. "I love it, and I'm ten years old," says another. A third: "As a 17-year-old, I enjoy this game. I don't know why I downloaded it, but I'm glad I did." Adults are at it too: we lost a chunk of our flight to Stockholm to the breezy musical toy *Toca Band*.

"I guess it's harder to take out your dolls from under the bed as you get older, but playing on iPhone is OK," Ovemar says. "And that's sort of sad in a sense, but it feels good to be able to offer kids a chance to not grow up too fast. We said from the beginning we weren't going to do violence; we weren't going to try to be sexy. Let's not divide boys and girls into pink and blue; if they play with the same toys, maybe they'll interact better with each other, and we're doing something good for the world."

And good for Toca Boca too, of course, though nothing lasts forever, and the decline in the paid app market means the studio must change tack if it is to maintain its success. Ovemar and company may have mastered the art of making digital toys for three to six year olds, but the problem with making games for so small an age group is that none of us are getting any younger. Older kids may still love Toca Boca products, but as the years roll by, the more options they will have when they sit down with a parents' device for the day's allotted screen time. Ovemar knows this only too well: his kids, three and five at Toca Boca's inception, are now eight and 11. "It's hard to compete when *Clash Of Clans* and *Minecraft* are taking over, and you're competing with other games, with YouTube. It's been five years since our first app. If you were five then, you're ten now; can you stay with Toca Boca, or are we too young for you? That's the challenge we're facing now, proving that it's fun to play on the iPad with Toca Boca, even if you're ten."

The solution lies in expansions into the physical world, with a range of toys and figurines of characters from the Toca Boca universe. The company is also moving into video: a New York division, helmed by former Sesame Workshop creative director J Milligan, was set up last year. Ovemar sees kid-oriented online video as a similarly blank canvas to the one Toca Boca found on the App Store in 2015. But Toca Boca wants to continue growing its app business, too – and that may prove to be an even bigger challenge than breaking into toys and video.

If the difference between two children aged three and six is stark, the gap between ages three and nine is staggering. Ovemar, however, believes a single app can appeal to both and all ages in between. The youngest can poke and prod and play with what's in front of them; their elders can experiment, unfurling more layers of complexity as they burrow deeper down into the toy chest.



"I guess it's harder to take out your dolls from under the bed as you get older, but playing on iPhone is OK"







Paint My Wings (left) was Toca Boca's third release, in a time before all its apps bore the Toca name. *Toca Dance* (below) is resolutely on brand, however

In *Toca Nature* (above) you sculpt the landscape and daub it with plantlife, then zoom down to ground level to look at wildlife. The *Toca Life* apps (left) are simple, tactile digital dollhouses

> "Even if you love us so much you play for a hundred hours, there's no way you can give us any more"

After the prolific experimentation of its first five years, the Toca Boca of 2016 is focusing on three apps that will be updated more frequently than its previous releases, each focusing on a different type of play. *Toca Dance* is an example of creative play: you use the touchscreen to create a dance routine that can then be played back and saved as a video to the device's camera roll and shared from there, if a parent agrees. *Toca Blocks*, a freeform world-builder in which you sketch out a world for three onscreen characters to navigate, combining blocks to form new ones with different properties and even objects to be placed in the world, naturally has a creative element. It also involves what Toca Boca terms exploratory play, where you mess about with the tools at your disposal and see what happens – perfect for the upper end of the new target age group. *Toca Life*, meanwhile, is for roleplay, a digital doll house.

Toca Boca hasn't been a regular updater of apps in the past – typically, it has launched a product and updated it once, before moving on to the next project. Now it's tinkering with how it can better adjust to an era where players expect regular updates, without compromising its values. When IAP is off the table, conventional App Store wisdom doesn't apply. "If we only have five apps, [their combined price] is the total amount of money you can give to us – even if you love us so much you play for a hundred hours, there's no way you can give us any more," Ovemar says.



While *Toca Blocks* is being updated in reasonably traditional fashion, with new block and object types given away for free, Toca Boca's plan is to expand the base functionality of one app into a new one it can sell separately. Future *Toca Dance* releases will offer more songs, characters and shapes to throw; *Toca Life* is now a series of three apps, set in a school, a town and a city. It's the sort of approach that will have analysts the world over shaking their heads, but there's a clear reluctance to do anything that risks compromising the strength of Toca Boca's brand: quality, playfulness and, above all, trustworthiness. Toca Boca defined a small sector of the mobile market on its own, honourable terms, but it has hardly had a pervasive influence on a sector that only gets grubbier and more money-hungry as conditions get tougher.

It may not work – but it may not matter either. "The paid market [for apps] is very much declining," Ovemar tells us. "We're not declining with it, but it's definitely going down. So we'll create these new types of products and we'll just have to see. Can we make more money on apps? Is it even important, or is it just a good way for people to experience our brand so we can sell them other things? We'll just have to find out."

Indeed, though there are cautionary tales. Rovio, for all its success in taking *Angry Birds* from the touchscreen to the toy store, laid off a third of its workforce last summer and is about to release a CG movie three years in the making to a market that has largely forgotten about it. Shortform online video will be a little quicker to produce, but Ovemars acknowledges the concern – albeit with the understandable confidence as the head of a company that, six years ago, found a gap in the market, cornered it, and defined it forever.

"There aren't really any good examples of a brand starting in apps making it work across mediums," he says. "*Cut The Rope*, Rovio… you can't really say they're successful examples of how to take a touchscreen brand into the real world. There are no examples of how to do it.

"Maybe we'll be the case study. They'll point to us and say, 'This is how the new Disney got started'." If the past five years are any guide, it might just happen. ■





Frida Schlaug and Mårten Brüggemann are programmer and play designer on freeform world-builder *Toca Blocks*

While some combos in *Toca Blocks* have predictable end results, patterned blocks can be blended forever, producing a different result each time

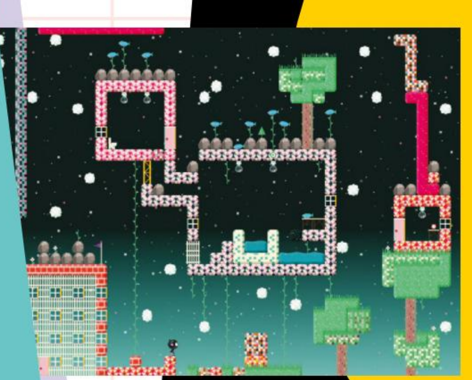
Spring blocks

When we meet, **Mårten Brüggemann** and Frida Schlaug have just returned from GDC in San Francisco – an odd place for a company that doesn't strictly make games, perhaps, especially given the focus on VR at this year's event. The two come from very different backgrounds: Schlaug from corporate app development, and Brüggemann from traditional game making (he was lead game designer at *Magicka 2* developer Pieces Interactive). Both have had to make adjustments to their ways of working in the production of *Toca Blocks*.

"We're so focused on the core experience," Brüggemann tells us. "You can't really hide behind good graphics, because the kids will see through it. In traditional games you have a lot of interaction models that you know work, but when designing for kids, it might be the first time they've ever used an interface like this. It should be intuitive and welcoming, even for a person who's never used a digital toy before."

Toca Blocks certainly does that. It's snappy, satisfying stuff, and the bar of inventory icons – one with flickering colours, another slowly rotating, others with blinking eyes – begs to be touched. The comparison with *Minecraft* is obvious, but there's a distinct nod to *Super Mario Maker* too in what Brüggemann describes as sitting somewhere between a world builder and a level editor.

There are also references to the physical world. "I really wanted a tactile feel to the blocks," Brüggemann says. "We worked a lot on making it fun to just play around with, making the actions feel really tangible. You don't really feel it with other digital toys – even Lego's own digital products don't capture the feeling of snapping two Legos together. It can be hard to translate it." Toca Boca may have done so here, but elsewhere within the company a team is working on doing the opposite – turning digital toys into physical ones.



THE MAKING OF...



AXIOM VERGE

A five-year journey from leisure-time hobby to big-time success

Format PC, PS4, Vita, Wii U, Xbox One
Developer/publisher Thomas Happ Games
Origin US
Release 2015

Thomas Happ had been busy making *Axiom Verge* for the best part of three years when he noticed something had changed. As a coder at RTS developer Petroglyph Games, Happ found his workday more frequently interrupted by his colleagues, who would enthusiastically express their desire to assist him with the project he'd been developing in his spare time. He was pleasantly baffled by the influx of offers. "I just thought, 'Why would I want to have someone else do my hobby for me? That makes no sense'," Happ tells us. "Like, some people collect stamps. It doesn't just suddenly occur to them that they should get a team of stamp collectors to help them with it." It would, he adds, "be like paying somebody to eat my dessert".

Happ certainly hadn't expected such attention when he first decided to spend his evenings and weekends working on a game; it was just supposed to be something fun to do with his leisure time. He was making this for himself, assuming "that no one would play it, and it would never be heard of", since that's typically what happens to hobbyist game developers. "I figured I'd just put it on [my] website and nobody would ever see it, so I was shocked when the first time I put up a video it was being reported on major websites. My past experience suggested I'd put up a game and no one would care, and that was the end of it."

Axiom Verge's unlikely rise to prominence was, Happ modestly suggests, a confluence of good fortune and good timing. When he posted the first YouTube video of his work-in-progress, his Twitter account had just three followers – one of whom was fellow indie developer Ben McGraw, who had 1,000. "He was following me because we went to college together," Happ recalls. "People knew who he was, and [wondered] about this YouTube link he was tweeting out. And it started to spread from there."

Released in April 2012, that expertly cut teaser showcased highlights of the game's first area, up to and including the first boss fight, with a closing caption revealing it would be coming to Xbox 360 and PC in 2013. While it gave away very little, the reaction was overwhelmingly positive, though Happ was amused to note a few misunderstandings among the comments that followed. "I guess people filled in the blanks with their imaginations, and they thought it was a whole game where you run



The bosses are imposing and distinctive in their design. Most foes are a hybrid of cybernetic and organic parts

around a red-coloured planet, [just] because this first area was red," he laughs. "They were like, 'Everything is red in this game, like the Virtual Boy! And you use a drill – it's a Drillervania!'"

He had, however, kept one key element hidden from view. Happ had been working on the game for a year before he decided that the ability to glitch through walls and floors would

PLAYERS, HAPP SAYS, WANT GAMES TO LOOK HOW THEY REMEMBER THEM, NOT HOW THEY ACTUALLY WERE

be a major mechanic. He didn't want the ability to be the first players would discover – and since he was developing the game sequentially, it was in the design document but not in that early footage. Ironically, it was inspired by an instance of sequence breaking: Happ's all-time favourite glitch, *Metroid*'s secret world, which can be accessed by a technique that allows Samus Aran to jump inside doors and walls. "You enter this part of the game that's basically an area of memory you're not supposed to be in," Happ explains. "It gets interpreted by the game as an unintentional jumble of rooms that you can walk around in. As a kid, that seemed very special to me, and so I researched ways of how I could build that into a mechanic."

The *Metroid* influence can be seen in the game's aesthetic, too, though Happ was aware that precisely recreating an 8bit look might not be well received; players, he says, want games to look how they remember them, not how they actually were. "The background [in *Metroid*] was always pure black and the world is just four colours for the backgrounds and four colours for the sprites," he explains. "Whereas this has more colours for different objects in the environments, it has backgrounds, parallax scrolling layers, and other effects on top of that that are actually polygonal. So it couldn't be done [with 8bit tech]." Still, many responses delightedly focused on its apparently authentic vintage look. "The thing is, they don't remember [games] in such great detail, so you definitely want to have some degree of enhancement," Happ says. "Even *Shovel Knight* added extra colours and parallax-scrolling backgrounds."

For the soundtrack, Happ cooked up a similar combination of old and new, borrowing again from *Metroid*, while combining chiptune sounds with sampling of square and triangle waves. Yuzo Koshiro's work on *Streets Of Rage* and *The Revenge Of Shinobi* were key influences, but Happ's fondness for modern electronica means you may also detect hints of Goldfrapp and Ladytron. "*Mass Effect* left a big impression on me, so there's a certain amount of that classic '80s synth in there, too," he says.

Meanwhile, ideas for boss encounters began to take shape during Happ's working hours. As a programmer, he'd often face a long wait for a new build to compile, and in that spare 15 minutes he'd grab a notepad and sketch out rough concepts. "Most of it was just free-flowing, whatever was in my head at the time," he says. "Though I was trying to create a general biomechanical aesthetic to fit with the plot, which is a kind of discussion of the interface between living beings and machines."

All the individual elements were coming into place, then, but Happ's determination to not only go it alone, but to do justice to his vision – in part, no doubt, to the raised expectations from that debut trailer – meant that development extended well beyond its planned release date. The Xbox 360 version was canned, and *Axiom Verge* was set to come to PC alone. Happ soon realised that while he could handle the entire development on his own, ensuring that the game got its time in the spotlight was something he didn't have enough experience in.

Enter **Dan Adelman**. As Nintendo Of America's former head of digital content and ▶

development, he'd accrued a reputation as a friendly, approachable figure, fostering strong relationships with small studios during a nine-year tenure that saw him oversee work on four digital distribution platforms. Naturally, he was made redundant, an announcement that was widely reported, and led to him striking out alone (his self-effacing job description on LinkedIn simply says 'helping indies with the business stuff'). As an indie needing help with the business stuff, Happ was quick to get in touch. "It was maybe a month or two after I left Nintendo," Adelman says. "He said he was six months to a year away from launching this game, and while he was confident in every other aspect of game development, the business side was another matter." Over lunch with Happ and his wife Chloe, the two men realised this was a good fit for both of them: Happ had never previously had to deal with marketing, or dealing with press, while Adelman had a game he could easily get behind. "He sent me a build and I absolutely loved it," Adelman says. "It was the kind of thing I really hoped might come across my desk someday – a game I could feel really passionate about."

News that Adelman was working with Happ spread quickly, with Nintendo fans in particular jumping to the obvious conclusion that it was headed to Wii U. So the announcement that it would be a timed exclusive on PlayStation 4 was interpreted by some as a deliberate snub on Adelman's part towards his former employer. The initial reason was much simpler: the MonoGame engine Happ was using to develop the game was only supported on PlayStation 4 at the time. Still, Adelman could easily understand the confusion. "On the one hand it looked like a Nintendo game, but [on the other] it was coming to PS4, so that was a little bit surprising."

Adelman had already forged a strong relationship with Sony during his time with Nintendo. "We would see each other at the same trade shows," he says. "In the very beginning there was a bit of cautiousness and territoriality, but that broke down pretty quickly when we found that we all had the same interests at heart. We wanted to see this segment of the industry grow and develop, and so we recognised that all of our different platforms had different strengths, and we were all trying to do right by the developers." He contacted Sony's team to discuss how the game might benefit from some investment via the company's Pub Fund program, and before long



Thomas Happ
Design, programming, graphics, audio

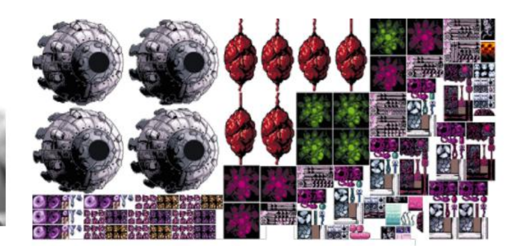
What kind of impact did the introduction of the glitch mechanic have on level design?
Well, it made a big difference when it came to considering the width of every wall…

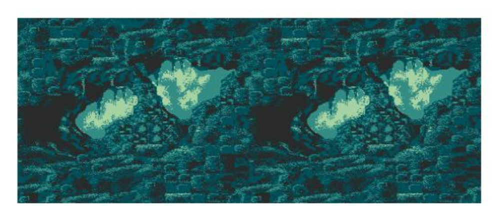
Was it among the biggest challenges?
Actually, even before you get to the glitching, the biggest [task] is making sure everything you want the player to reach can be reached. In game design terms, the way I went about that was to assign every ability a number, and on my game design map I would write down the number of the item you needed to get past each part, because it was just so complicated to have to keep track of it all. I didn't want players to inadvertently get some later item or get stuck in some super-hard area without first getting the easier item you needed to reach it. That was definitely not easy. Multiple times I had to go back and change everything because I didn't have all the abilities programmed at the outset. And things like distances between tiles all had to be factored in there. I'd be manually counting them, saying, "OK, when I draw this platform it has to be at least 11 tiles higher than the other one, otherwise it's going to break this other ability." That kind of thing.

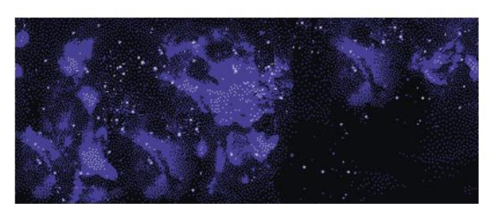
Some enemies have their own glitch form, one of which is a familiar reverse-L shape. Is that a kind of homage to the famous glitch Pokémon, MissingNo?
Yeah. I forget exactly how it works but if you capture MissingNo, then the sixth item in your inventory gets multiplied by 128. I hadn't played *Pokémon*, but there was a similar thing in *Final Fantasy VI* [the sketch bug], where you'd maybe get 255 Atma weapons or something in your inventory. And I just really liked that idea. *Axiom Verge* doesn't have consumable items, so I was just trying to think of ideas that would stoke people's memories, or give players a new experience.

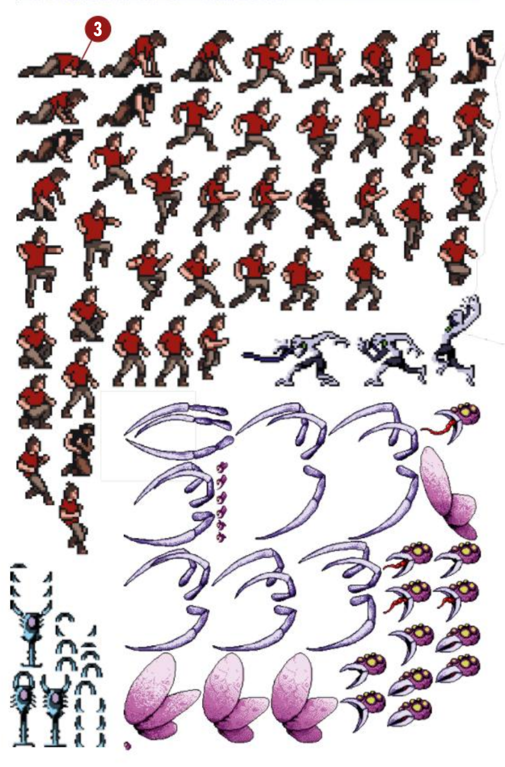
Happ found himself enthusiastically signing a contract to bring the game to PlayStation 4.

Now he had official confirmation of a guaranteed return, by April 2014 Happ's hobby had finally become his job. Nonetheless, while he knew he could afford to live, a guarantee wasn't the same as an advance. Soon, Happ had maxed out his credit cards and was relying on his mother-in-law to pay for groceries. "I was working on the game full-time and started ▶

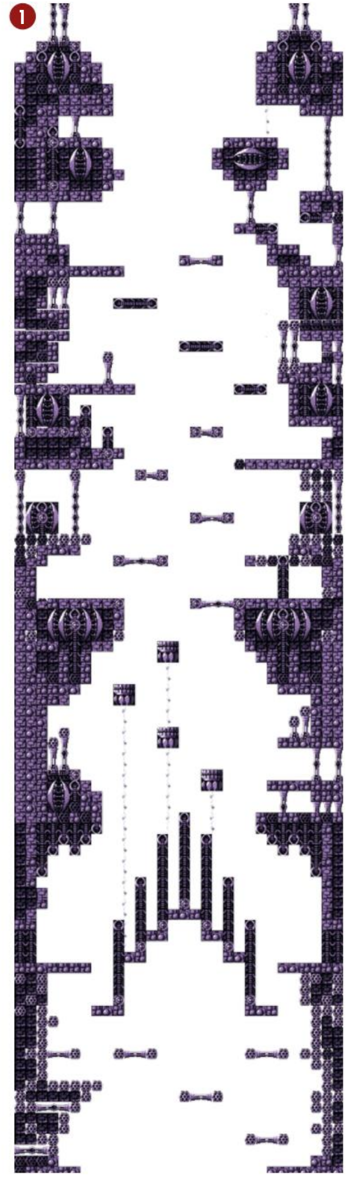


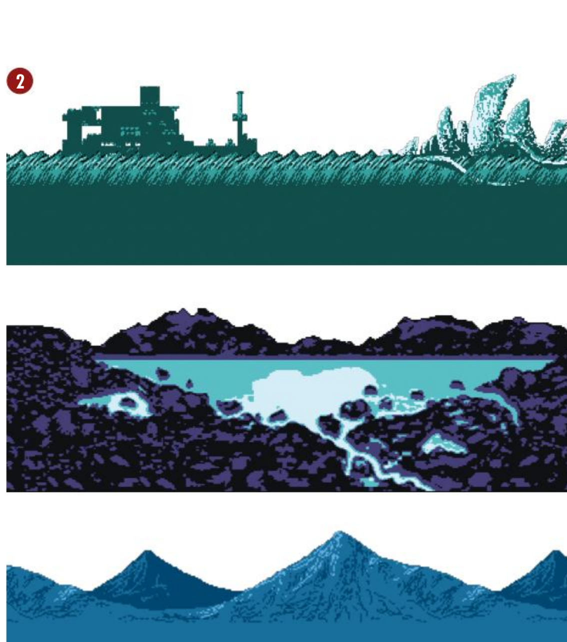




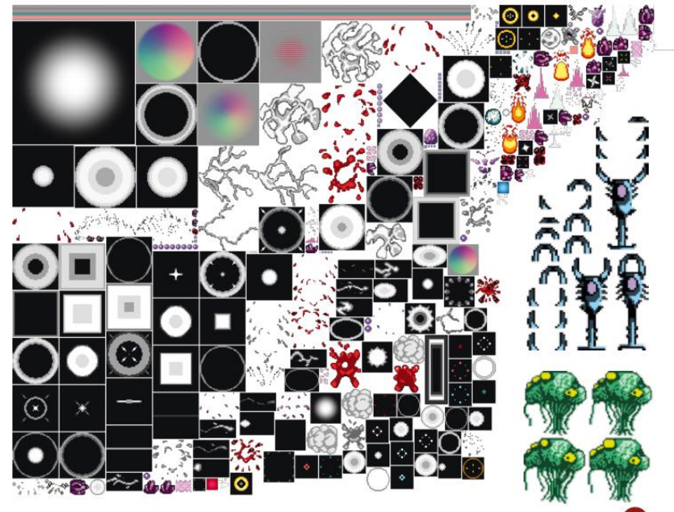


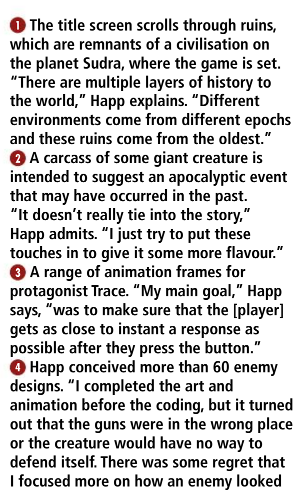






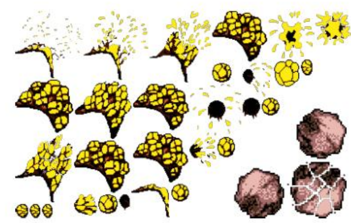


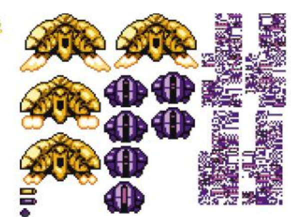




1 The title screen scrolls through ruins, which are remnants of a civilisation on the planet Sudra, where the game is set. "There are multiple layers of history to the world," Happ explains. "Different environments come from different epochs and these ruins come from the oldest."
2 A carcass of some giant creature is intended to suggest an apocalyptic event that may have occurred in the past. "It doesn't really tie into the story," Happ admits. "I just try to put these touches in to give it some more flavour."
3 A range of animation frames for protagonist Trace. "My main goal," Happ says, "was to make sure that the [player] gets as close to instant a response as possible after they press the button."
4 Happ conceived more than 60 enemy designs. "I completed the art and animation before the coding, but it turned out that the guns were in the wrong place or the creature would have no way to defend itself. There was some regret that I focused more on how an enemy looked instead of how to fight the thing"









working [at Petroglyph Games] part-time, which I did for about six months. Then Dan was eventually able to secure me an actual advance, and once that happened, I was able to work on the game full-time for the final six months of development."

After five years, *Axiom Verge* was finally finished, and launched worldwide on PS4 in March 2015, arriving on Steam two months later. Yet such is the developer's curse that, even having spent half a decade of his life on the game, and garnered widespread praise, Happ has been unable to stop himself from continuing to scrutinise the game for weaknesses. Despite a keenness to reward players with more meaningful upgrades than a simple capacity increase for ammo clips or a few bombs, he now says he's concerned that he may have added just a few too many bonuses. "I wanted the things you find to change how you decide to play the game, but not in ways that break it," he says. "The challenge was to make every weapon be different from another, but in a way it ended up kind of backfiring, because even though my goal was to provide more variety than, say, *Super Metroid*, what people picked up on was not that this [gave them] more variety, but that they kept on finding weapons, therefore weapons must be less valuable."

For the time being, Happ has had to put any future plans on hold. After all, there's the small matter of other console owners clamouring to play his game. Which isn't to say he's handling the ports without help; after careful consideration, he's chosen to hand his baby over to BlitWorks, a studio that has worked to bring the likes of *Fez, Spelunky, Bastion* and *OlliOlli* to various formats. The demand, Happ says, has been there from the start. "I made it for PC and with the knowledge that it wasn't going to be the final platform, and it was just a case of which of the different fish will bite, and Sony by far showed the most interest. I said, 'OK, PS4 and Vita it is', and once the word got out, other people started asking why it wasn't on other formats." Though Vita players were the most vocal, one Wii U owner took to YouTube to voice his complaints. "This one guy said he no longer believed in God because it wasn't coming out on a Nintendo console," Happ grins.

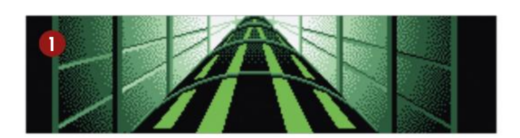
The fans' faith – and patience – is slowly being repaid. By the time you read this, *Axiom Verge* will be in the hands of Vita owners, while Wii U and Xbox One players won't have much longer to wait. Six years on, this long chapter in Thomas Happ's life will finally have come to an end. Time, then, to consider a sequel? "I'm going to have to inject some variety into whatever's next," he says. "Just because doing the same thing over and over would be monotonous."

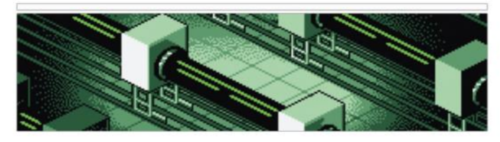
Indeed, if there is a follow-up in the offing, it may draw closer inspiration from another NES favourite. "It seems like every *Metroid* game is basically the same game," Happ says. "There's only so many times you can have the same [structure] and arrange levels differently. What I'd rather do is make games that have different mechanics but fit into similar themes. When you look at the *Castlevania* games, they go more in that direction: in some games there are whips, in others you use a sword; in some games you absorb souls, and in others you collect them. I like that approach a little better." Whether or not Happ ends up paying someone to eat his dessert for him next time, the undeniable success of *Axiom Verge* should at least mean he has enough spare for his own groceries. ■

PORT AUTHORITY

Bringing the game to Vita as originally planned has proven particularly troublesome. It's taken so long that Happ has been accused of laziness and losing interest in the process, but with the portable unable to support the game's engine, there was little he could do until recently. Sickhead Games' Tom Spilman has since brought the MonoGame framework to Vita, though it took almost a year to happen. "It's such a difficult thing to describe," Happ explains. "It's almost like they had to write a Microsoft Word document, but first they had to program Microsoft Word on Vita in order to make the document they needed. They had to make this whole other application that in itself is a bigger task than just making a game."

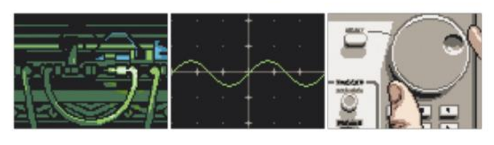
Adelman has been more heavily involved with the Wii U version. Indeed, while he was still at Nintendo he'd been trying to encourage hardware support for MonoGame. "I was trying to get something going, but we were never really able to get enough internal buy-in to fund a port of the engine," he says. Once he and Happ had teamed up, he approached Nintendo again – this time more successfully. "From the very beginning Tom really wanted to do it on Wii U, I wanted to do it on Wii U, and Nintendo wanted it on Wii U. So it was not a question of if we should do it, it was when and how." The two sought a studio with the skillset to convert the game from MonoGame to C++, and eventually found a willing partner in Blitworks, thus ensuring that Wii U is the only format where *Axiom Verge* isn't running in its native engine.

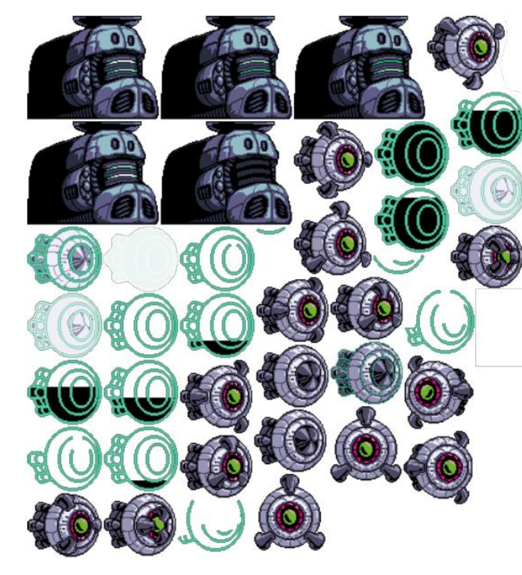

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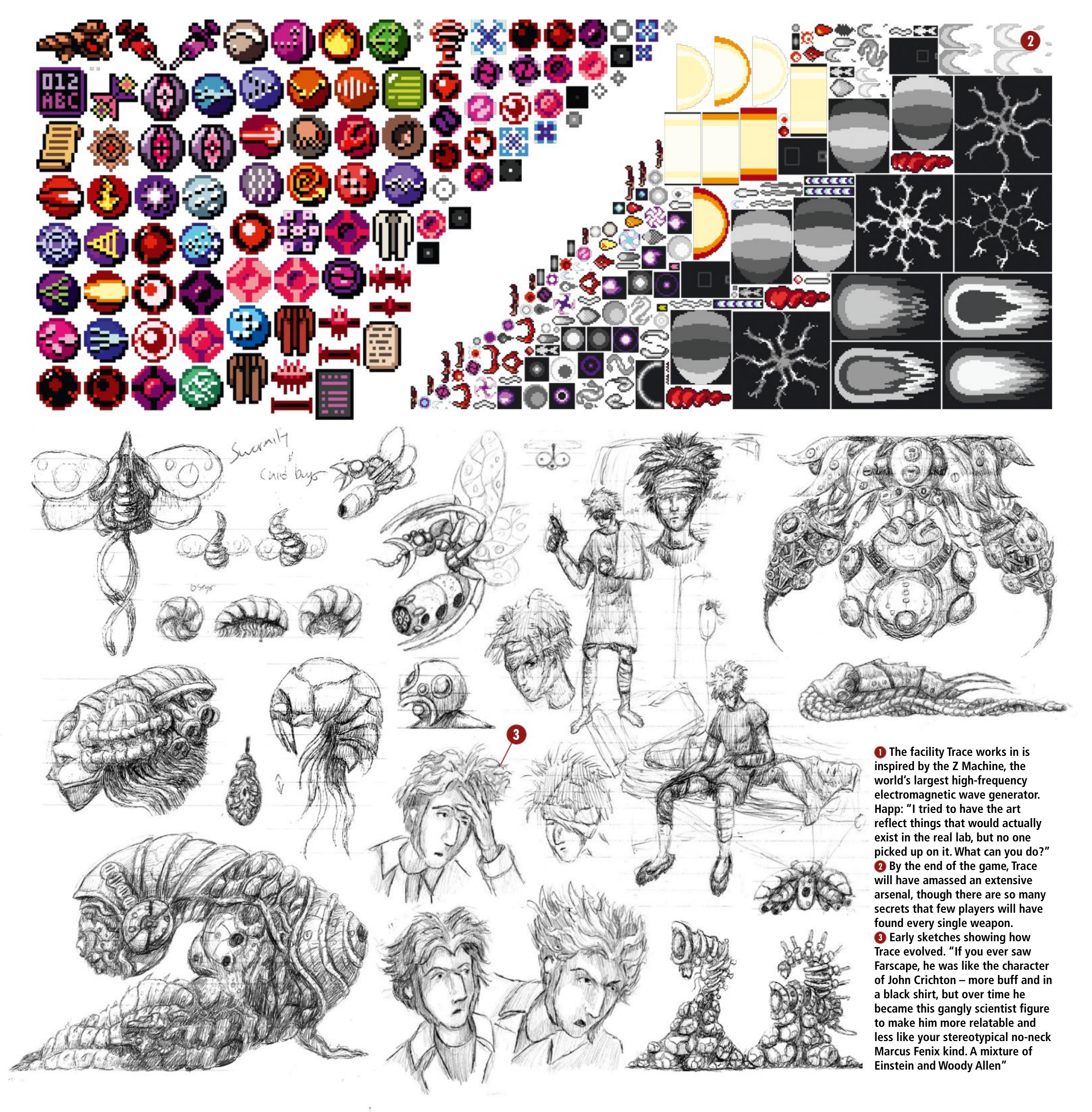




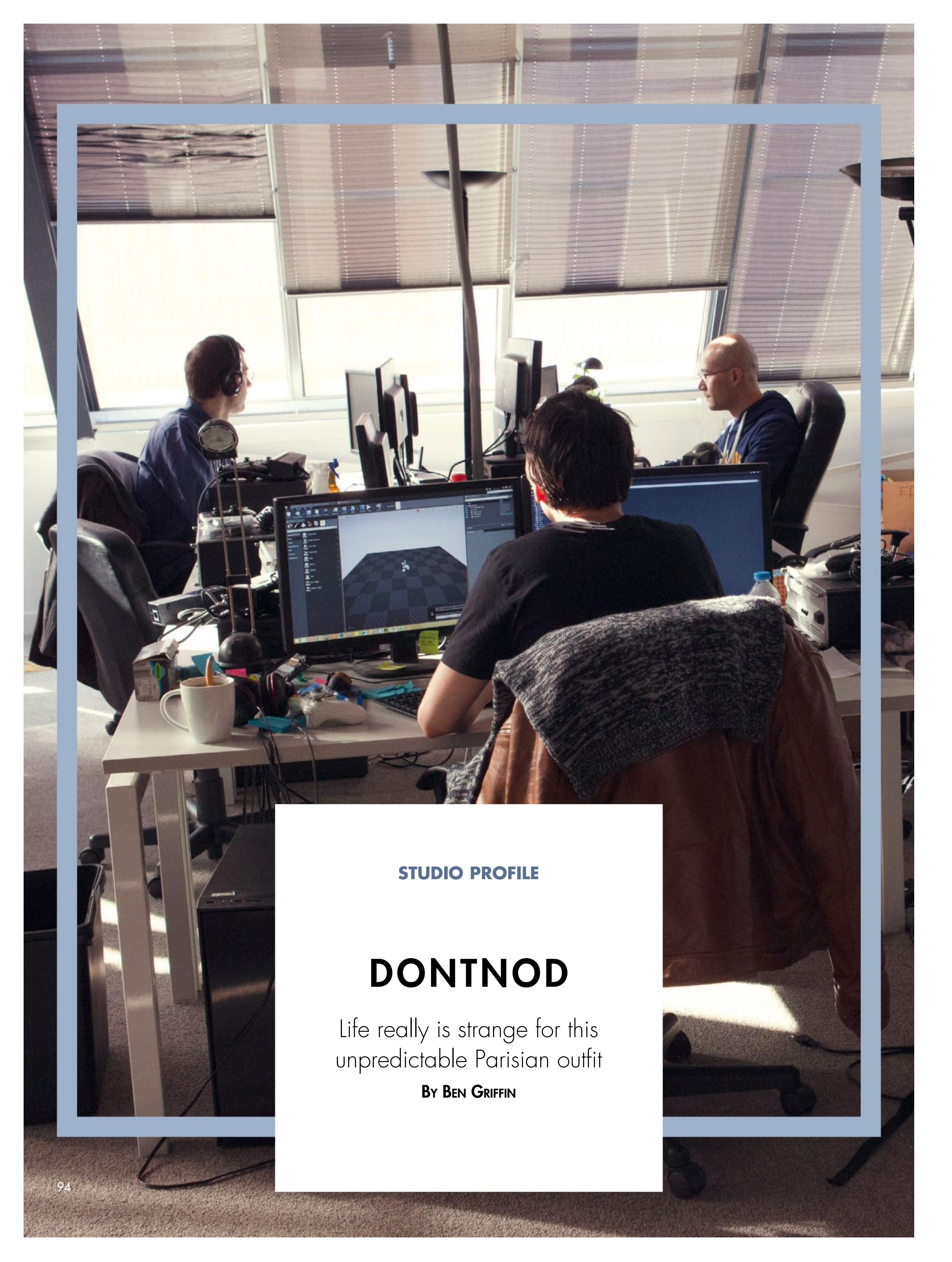








❶ The facility Trace works in is inspired by the Z Machine, the world's largest high-frequency electromagnetic wave generator. Happ: "I tried to have the art reflect things that would actually exist in the real lab, but no one picked up on it. What can you do?"
❷ By the end of the game, Trace will have amassed an extensive arsenal, though there are so many secrets that few players will have found every single weapon.
❸ Early sketches showing how Trace evolved. "If you ever saw Farscape, he was like the character of John Crichton – more buff and in a black shirt, but over time he became this gangly scientist figure to make him more relatable and less like your stereotypical no-neck Marcus Fenix kind. A mixture of Einstein and Woody Allen"



STUDIO PROFILE

DONTNOD

Life really is strange for this unpredictable Parisian outfit

By Ben Griffin

Founded 2008
Employees 100
Key staff Oskar Guilbert (CEO), Stéphane Beauverger (narrative director)
URL www.dont-nod.com
Selected softography *Remember Me*, *Life Is Strange*
Current project *Vampyr*

The words 'Final Boss' are written on **Oskar Guilbert**'s office door. Inside, rather than an intimidating showdown with a challenging figure covered in glowing red bits, we find Dontnod's friendly CEO. His spacious workplace features a slanted glass wall offering a grand view of Paris' Sacré-Cœur Basilica sitting on Montmartre, which is bathed in an orange early-evening glow.

Guilbert, a self-proclaimed 'tech guy' with a PHD in computer graphics and programming, worked on Criterion Software's RenderWare engine for a number of years before becoming a producer at Ubisoft, and started Dontnod in June 2008. "We were only five people at the beginning – we've grown from five to 100," he explains. "It's really impressive when I look back to see how it moved, how it changed."

The studio's first office was a 50m² space near Gare De Lyon on the north bank of the Seine. The current one, located in a quiet neighbourhood at the top of Paris – the Quartier De La Chapelle – allows the growing company more creative control. "When we moved, the owner of this place said, 'OK, we can give you this space and you can do what you want."

This explains the unique interior. With matte-black walls sliced at odd angles and seemingly randomly inserted windows, Dontnod's current HQ could moonlight as a laser-tag arena, and it's easy to imagine employees at the end of crunch deadlines unwinding with epic Nerf gun firefights. "We were at the end of *Remember Me* and one of the UI designers had made these black shapes for the UI," Guilbert tells us. "So we had him design the walls and the meeting rooms like that."

In the largest meeting room we sit not around a boardroom table and chairs, but on one of a dozen, teardrop-shaped beanbags. No wonder the studio is called Dontnod: from the walls to the furniture, there is evidence of a wilful resistance of any kind of convention. Its debut game, the Capcom-published 2013 action-adventure *Remember Me*, was a bold first step, not least for its female, mixed-race protagonist. While flawed, it was a thought-provoking, smartly designed action game set in a Neo-Paris of 2084, where brain implants allowed the population to upload memories to the Internet.

Despite a lukewarm reception in certain quarters, its vision remains unique. Chrome and glass twirls around iron and stone landmarks, robots ferry about shopping bags, and holographic menus hovering in front of



Guilbert and his team try and freshen up the office once a year, discarding what they don't need and building anew

restaurant display the price of confectionery. "As far as art is concerned we've gained some street credibility from *Remember Me*," says art director **Grégory Szucs**. "We're completely confident in our ability to deliver, and if they want something that they've not seen before, they trust that we are going to be able to carry that vision."

Dontnod's beginnings were tricky, however. *Remember Me* was originally known as *Adrift*, and was to be a PS3 exclusive published by Sony – but when the platform holder had to make cutbacks, Dontnod found itself without a publisher. Capcom would come to the rescue, but for a while the studio was in limbo.

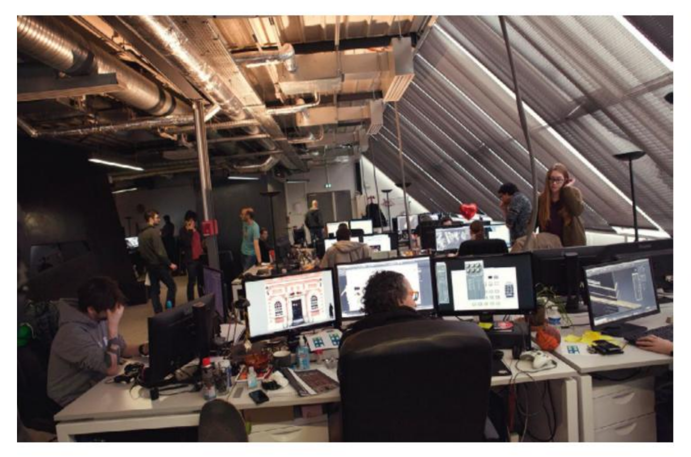
"Between the time we lost Sony and signed with Capcom, it was this very strange time where we had no publishers, we had not much money left, but we still had a game to deliver," says narrative director **Stéphane Beauverger**, who joined in 2009 (Sony dropped the game in 2011). "That was a very strong, very intense time. We had to find solutions very quickly. I'm convinced that the more constrained, back-against-the-wall, more trapped you feel, the more clever a solution you have to find." Beauverger recalls an old quote from one of the Monty Python team: "'We had to be brilliant because we had no money!' I liked that very specific time of Dontnod because we had to be very clever, very efficient, without money." Dontnod went to Gamescom in 2011 with a teaser and some concept art, hoping to generate press interest and, through that, another publishing deal, aiming to have a contract in place before the year was out. It worked, but the team learned a valuable lesson. "We may have been too ambitious with what we wanted to do with *Remember Me*," Szucs tells us. "Now we know definitely how to choose our battles and deliver our specific polish."

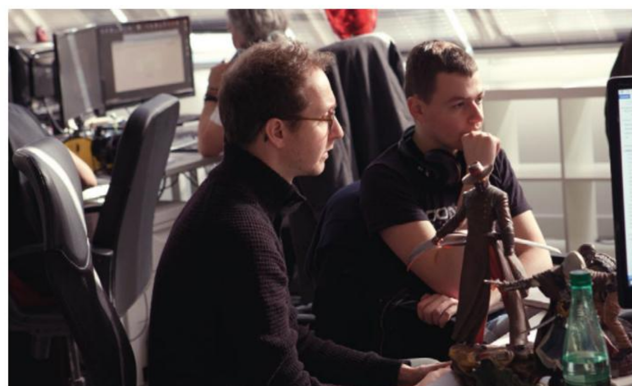
The studio's follow-up was *Life Is Strange*, which borrowed *Remember Me*'s time-rewind mechanic but was otherwise a stylistic world apart from Dontnod's debut game. Guilbert admits some trepidation about the game's risks. "I challenged them at the beginning," he says. "I said, 'Are you sure about the two girls?' And they were all the time very affirmative, and they told me, 'Yeah, this story would not work if it was two boys or a boy and a girl'. It's always a difficult question to answer: 'Why this? Why a woman? Why a man?' For us, it's more about what kind of emotion we want to create, what we want to convey."

Life Is Strange retained *Remember Me*'s thirdperson perspective and movement, yet this was no action game, but rather a choice-driven narrative that owed a certain debt to Telltale Games and point-and-click adventures of old. Like Dontnod's debut, it starred an atypical protagonist, this time the introverted teenager Maxine Caulfield. It was episodic, with five instalments spread over January to October of 2015. It passed the Bechdel Test. It covered difficult social issues such as drugs and suicide. And it was, above all, an incredible success.

"We'd learned from our errors," says Beauverger. "Each company has to learn from previous errors, previous mistakes. And I guess we are more organised now; we are more able to deliver on time because we know we have more budget to do so." *Life Is Strange* was ▶

"IT WAS A STRANGE TIME: WE HAD NO PUBLISHERS, WE HAD NOT MUCH MONEY, BUT WE STILL HAD A GAME TO DELIVER"





The top-floor studio offers incredible views over Paris, although the interior works hard to be an interesting space in itself, taking a little inspiration from Dontnod's debut release

originally meant to be a single, full-length release that Dontnod would self-publish, but when it signed with Square Enix, the Japanese publisher felt it would work better split into episodes.

Few studios can boast of having made two original games, in two completely different genres, with their first two releases. *Remember Me* and *Life Is Strange* are completely unrelated in terms of tone, mechanics, and genre. So just what is it about Dontnod that fosters these kind of ideas? For Beauverger it has to be freedom of creation. "As narrative director I would say I really feel free to create many stories, many characters. Now we've made *Life is Strange*, people see us as storytellers. We have this tag on us: Dontnod tell stories. So we're more confident in that, and we know that we can tell even more complicated, even more intriguing stories to the player because this is part of Dontnod's DNA."

Art director Szucs agrees on the importance Dontnod places on narrative: "I really think it's dedication to telling stories, having the player make tough choices and face the consequences of their decisions. That will be in all our games."

Dontnod's current project, *Vampyr*, is similarly story-centred and similarly unexpected. Set in post-Victorian London, it tells the dark story of Dr Jonathan Reid, a vampire who uses the chaos caused by the Spanish Flu and the confusion following four years of brutal war as cover to skulk around, either curing citizens of their affliction or feasting on them. *Vampyr* tells of a studio more confident in what it wants to create before it creates it.

On our tour, we see developers engrossed. One monitor displays pictures of Ripper Street, *Assassin's Creed Syndicate* and Sherlock Holmes (both the Cumberbatch and Downey Jr versions) for visual reference. There are shelves stocked with literary reference materials, including Liquid History: The Thames Through Time and The Book Of Facial Expressions: Babies To Teens. Authenticity, both from a geographical and anthropological perspective, is important to Dontnod. *Remember Me*'s Neo-Paris was not a city rebuilt for the future, but repurposed, its architecture built on top of, rather than replaced – a sense of a city that has grown and evolved over time, much like the studio that made it.

Guilbert stresses the importance of renewal. "It's very important to change, to have several creative people who are strong, who can develop their own ideas. And change is good for us." The studio holds a dedicated 'de-clutter' day each year, for which everyone throws away anything they no longer need. More important, though, are creative days. "Every month or two we have a day where people can do whatever they want," Guilbert explains. "It has to be linked to the project we're doing here – something that will be useful for the company as a whole."

"We call them Dontnod Days," Szucs tells us. "We've had some pretty silly game jams, like super-deformed animals kissing each other. I'm not sure I can talk about other specifics…"

While Dontnod may seek to reinvent itself with every new release, it ensures it holds true to its past. Traces of its history are everywhere: there are *Life Is Strange*-style Polaroids on walls, a big orange wireframe model of *Remember Me*'s Nilin in the lobby, and a large banner bearing the name *Adrift*, a callback to Dontnod's days with Sony. Successful studios inevitably expand, but by dividing the roughly 100 staff into groups of no more than 15, and giving them ownership over individual projects, Dontnod keeps them motivated and ensures they feel their work is important, despite the rising headcount.

And it's clearly working. "I've always been fascinated by the passion of the staff, and how involved they are," Beauverger says. "I know it may sound cliché, but sometimes it's quite a problem in the videogame industry. Even when it's not crunch time, the people here work a lot. Working many months just to deliver the game to the desired quality… there's a very vivid passion at Dontnod, I think."

"PEOPLE SEE US AS STORYTELLERS. WE KNOW THAT WE CAN TELL EVEN MORE COMPLICATED, INTRIGUING STORIES"

"I've been working for Dontnod for six years," Szucs says. "Every year there's a birthday party [for the studio's founding]. We get a shirt every year, and I'm just missing the first one." And, of course, Dontnod always finds a way to have fun. "We were nominated in two categories at the Develop Awards and I had promised to go swimming in the English Channel at Brighton if we won those two awards," Guilbert says. "Well, we won, so I was happy to keep my word and went swimming in water at a temperature of 12°C! Fortunately, we drank a bit before and the champagne warmed us up."

So what's next? Whatever it is, you can be certain it won't be a sequel. "We want to do something different," Guilbert says. "Not repeat ourselves, not say yes to everything." Finally, the studio's name makes complete sense. ■



1 Dontnod's vision of future Parisian fashion was a strength of 2013's *Remember Me*, offering a mix of sporty and chic wear. 2 Artists went for a more low-key aesthetic for Max, the *Life Is Strange* protagonist. 3 Aesthetically, *Vampyr* breaks from Dontnod's previous work. 4 Leapers are mutated citizens of *Remember Me*'s Neo-Paris, driven mad by their technology addiction. 5 *Remember Me*'s Nilin, as a mixed-race female protagonist, remains a rarity in videogames

PLAY

REVIEWS. PERSPECTIVES. INTERVIEWS. AND SOME NUMBERS

STILL PLAYING

Dark Souls III PC
Getting our grasping paws on a game far ahead of release is often a curse, as well as a privilege. Our weeks-early romp through a 60fps Lothric went sour when, in one late-game area, the framerate plunged to the low double digits, and armour began to float in the air a few feet behind its wearer. A driver update sorted the latter issue, and FromSoftware soon patched the former, but for a while there the toughest game of the year risked becoming an impossible task.

Dark Souls III PS4
While the supposed nerfs to sorcery and miracles are being a little overstated – staffs and chimes have poise-boosting weapon skills for a reason, kids – pure casting builds certainly struggle with *Dark Souls III*'s aggressive enemies. Praise the sun, then, for pyromancy, which is as complementary to a traditional sword-and-board build as it was in *Dark Souls*. And some of the late-game spells are simply, thrillingly devastating.

Dark Souls III Xbox One
Everything was going to plan in our Xbox One playthrough until we reached far into Cathedral Of The Deep, at which point the framerate began to struggle to keep up with its PS4 cousin. Our jolly co-opping has been prone to some teleporty play, too, although that may be an issue relating to general server load. On the plus side, our password-matching sessions have held up well, delivering the most entertainingly accessible multiplayer in *Souls* history.



Explore the iPad edition of **Edge** for extra Play content

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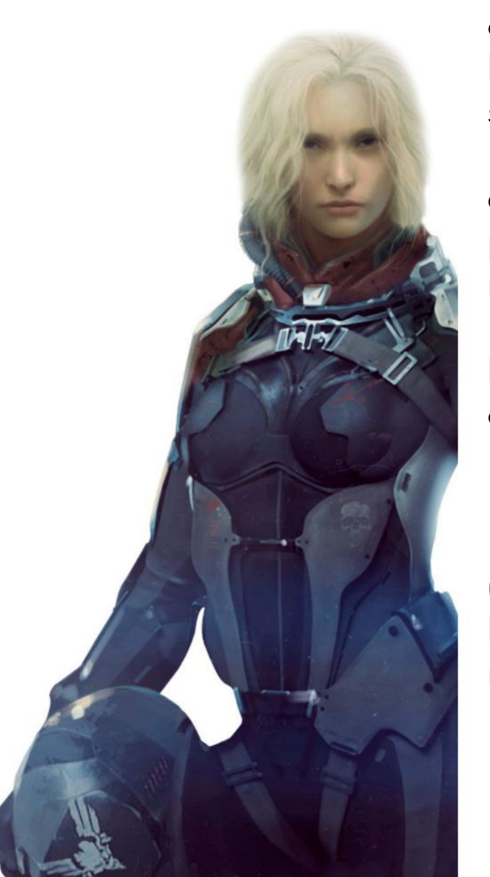


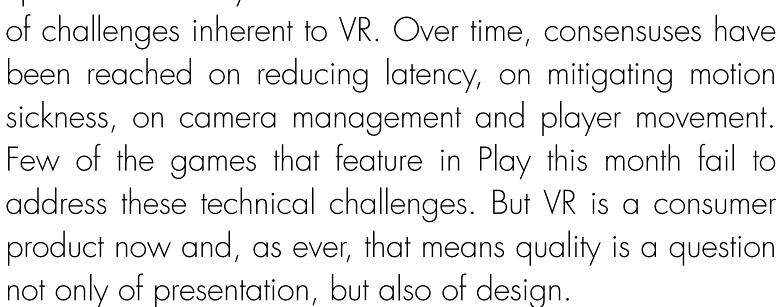
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Up-to-the-minute reviews and previews

~~Virtual~~ reality

So, it's finally here. This time five years ago, Palmer Luckey was knocking together a VR prototype in his parents' garage. Now the VR revival is complete, with Oculus Rift and HTC Vive in homes and offices the world over (widely documented delivery issues notwithstanding), and both HMDs promising to bring about the biggest shift in videogames in 20 years.

The pages that follow appear to tell a different story. It's true that neither the Oculus/Facebook partnership, nor the Valve/HTC one, has yielded an instant classic to justify the purchase of this tremendously costly new hardware. But it doesn't really need one: VR's USP is VR itself. Games' shortcomings can be offset by the experience of playing them from this astonishing new perspective.





In the almost four years since Luckey's newly founded Oculus took the Rift to Kickstarter, the development community has focused on how to overcome a set of challenges inherent to VR. Over time, consensuses have been reached on reducing latency, on mitigating motion sickness, on camera management and player movement. Few of the games that feature in Play this month fail to address these technical challenges. But VR is a consumer product now and, as ever, that means quality is a question not only of presentation, but also of design.

And so *EVE: Valkyrie* (p110), for so long a standard bearer for VR's tremendous potential, falls short for a good old-fashioned lack of depth. The similarly Rift-bundled *Lucky's Tale* (p119) is held back by being a by-the-numbers 3D platformer. But perhaps the most important lesson to be learned from this month's crop comes from *Final Approach* (p120). As a proof-of-concept tech demo, it was astonishing, but as a final game it's miserable. Crucially, there's much more to a good VR game than simply being good in VR.



Quantum Break

The pre-release concern over *Quantum Break*'s resolution was, as with so many endeavours that focus on numbers without context, entirely misplaced. Remedy's output has never wanted for visual quality, but in *Quantum Break*'s time-fracturing aesthetic the Finnish studio behind *Max Payne* has conjured up its most striking-looking game to date.

Playing out in the hours leading up to the end of time (a catastrophic dimensional collapse brought about by a physics experiment gone awry), the game's setting provides the scaffolding for a series of memorable set-pieces in which time stops, starts, stutters and rewinds around you. The results are consistently stunning. A dizzying, shifting platform gauntlet suspended in mid-air as a freighter smashes through a bridge. The frozen spiral of a helicopter's rotor-tip lights amid detonating fireworks as it hangs ominously a few feet from the landing pad. Cars that explode under fire and then put themselves back together again as time fights against your influence. Even if *Quantum Break* contributed nothing else to videogames, its introduction of reusable explosive red barrels is undoubtedly a worthy legacy.

The world is filtered through fizzing, light-refracting triangles, which represent the fracturing of spacetime – a visual language that's echoed more plainly in the swish architecture of scientific research facilities and mansions, and one reminiscent of *Deus Ex*'s universe – while people linger like mannequins, petrified in a final moment before time came to a juddering halt, their last words seeping through the cracks as a distorted, horrifying noise. It's an entrancing space to occupy and an effect whose impact never degrades.

The attention to visual detail carries across to more mundane areas, too, such as the digitised likenesses of the actors playing the game's key roles. Shawn Ashmore, Aiden Gillen, Courtney Hope et al have, for the most part, an uncannily believable presence in the world right down to the animations that play out during in-game encounters. Subtle expressions and movements offer up the sensation of directing a movie scene as you spin the camera around to take in the remarkable emotional details – although many of the physical animations feel clunky in comparison to these moments, and once a conversation plays out everyone returns awkwardly to their less-convincing resting faces.

But overall it's a powerful effect that narrows the gap between the game and TV show portions, the latter holding up better than expected. Sure, it's no Breaking Bad, and there are times when the live-action budget can't quite accommodate the game's grandeur, but strong performances from the cast draw you in while carrying the plot's sillier moments and, even at its least appealing, it's never any worse than schedule-clogging tosh such as NCIS or CSI. That may seem like damning with faint praise, but the point is that *Quantum Break*'s TV show is considerably better than it has any right to be. These episodes are also entirely optional, offering insight into the activities of the shadowy Monarch Corporation rather than your own progression, and they're only around 20 minutes long, which feels like a reasonable amount of time to ask players to down pads. Hideo Kojima has certainly leant more heavily on our patience in the past.

Developer Remedy
Publisher Microsoft
Format Xbox One
Release Out now

Remedy's combat mechanics have always been slick, but the time-distorting skills here are its best yet

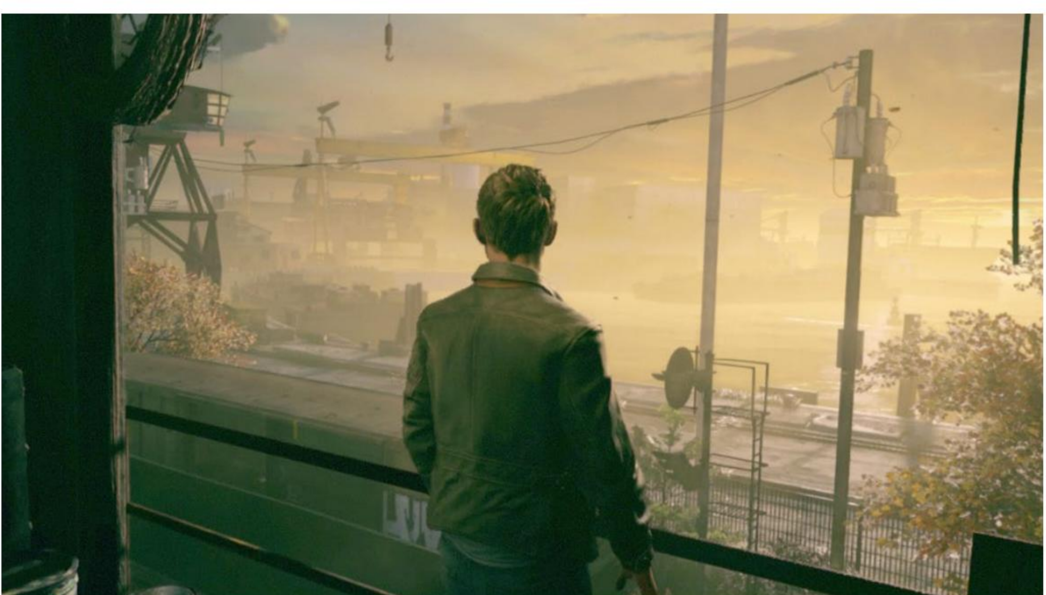


Prior to each episode you'll switch from controlling protagonist Jack Joyce (brother of William Joyce, the creator of the time machine that drums up all of this trouble in the first place) to Monarch founder, and Jack's former best friend, Paul Serene. In these 'Junctions' you'll be presented with a decision that will influence the events of the show, changing certain scenes and even removing characters from the rest of the story. Before committing, you can watch a vision of each possible future that sets out the broad scope of what will happen, and while early decisions are rather black and white, some later instances prove a little more ambiguous. Telltale Games-style feedback shows you what percentage of players aligned with you.

The game's story is an absorbing yarn that presents a fresh-feeling spin on the well-worn concept of an impending apocalypse, and cleverly intermingles events and motifs between its game and TV show components. It's an ambitious attempt to explore a different way of telling stories, certainly, but not every aspect is as progressive. In the game, much of the backstory is told via emails, radios and other 'Narrative Objects' that act as collectibles. We've no problem with scrolling through the occasional email chain – especially when they're as well written as *Quantum Break*'s correspondences, which can also be amusing – but when you're meant to be in a rush to save the world and find yourself with only four of 17 Narrative Objects, moving from office to office just to stand and read for minutes at a time, they feel like a jarring, heavy-handed remnant of a more traditional approach to videogame story exposition.

When you're not buried under piles of office admin, *Quantum Break*'s more mobile moments have much to offer. Remedy's combat mechanics have always been slick, but the time-distorting skills available to you here are the studio's best yet. Tapping L1 will quickly shift you a few metres in the direction of travel, allowing you to dodge enemy fire or get behind a target, while holding the same button activates Time Rush, which slows everything around you as you zip about the place. Tapping the B button near an enemy launches you into an instant-kill takedown animation, and dashing to new cover (Joyce takes cover automatically when near furniture and walls) will leave enemies targeting your last known position, giving you the upper hand. R1, meanwhile, handles Time Stop and Time Blast, the ▶

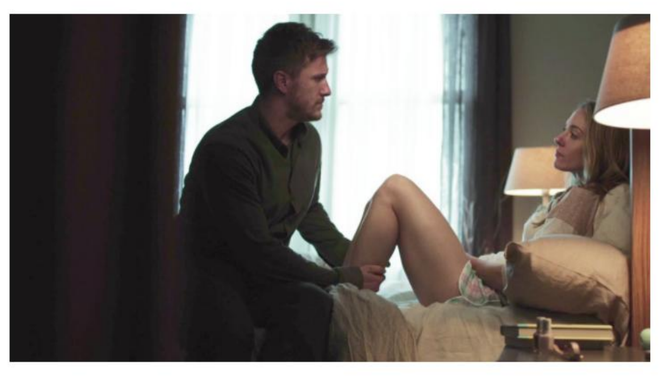
ABOVE Fallen enemies eerily hang in space during battles within time stutters, making for some striking, sometimes haunting imagery. LEFT *Quantum Break*'s world is consistently beautiful and packed with detail. Progress is entirely linear, but the sense of a wider world is effectively conveyed



BELOW Patrick Heusinger plays Liam Burke, a heavy working for Monarch Solutions who must weigh his job against his desire to ensure the safety of his pregnant wife



ABOVE As the story progresses, the influence of time travel and impending oblivion takes its toll on characters while an increasingly complex web of criss-crossing time lines is uncovered. It's a darker tale than *Alan Wake*



Exploring areas in which awkwardly contorted bodies hang as if in aspic is disconcerting, but strangely beautiful. Monarch Solutions' hi-tech corridors contrast heavily with the other dilapidated locales you'll visit

former creating a bubble around a target that allows you to stack bullets into one massively damaging hit, and the latter violently warping spacetime and damaging anyone within its radius. In addition to all of this, tapping B outside of Rush will briefly deploy a Time Shield, buying you recovery time.

Used in combination, these abilities make you feel fantastically powerful, managing the battlefield as you plan movements in order to pick off weaker enemies before dealing with armoured foes or those using tech to resist attacks. Strikers prove particularly problematic as they're also able to Time Dash and can operate within stutters when everyone else is frozen, but shooting their backpacks (or getting in close and taking a more hands-on approach) will leave them trapped at the point their technology failed them.

It's not all about manipulating time, though, and guns feel satisfyingly beefy, but in one of Remedy's few missteps you can only switch between your two special weapons and handgun by using the D-pad, making quick swapping in desperate moments an awkward affair. And while your Time Shield doubles up as a melee attack, knocking enemies into the air in close proximity, its attachment to a cooldown timer means you'll sometimes find yourself wishing that using the butt of your gun was also an option – an especially annoying omission given that everyone else is quite happy to use theirs against you.

At its best, *Quantum Break*'s combat is flowing and impactful. You'll wish there was more of it (a feeling compounded by the passivity of watching the TV episodes), and lament the occasions when your abilities are removed in the name of, presumably, gameplay



LIKE A BOSS
While schlocky in places, *Quantum Break*'s story is surprisingly nuanced, intimately exploring the motivations of those on each side of a struggle, and for much of its duration avoiding simplistic goodie-versus-baddie representations – a mature approach given further weight by the excellent cast. The pseudo-science that underscores its disaster scenario is also enjoyably detailed, and while poring over emails and documents might be detrimental to the game's pacing, in isolation each find makes for a decent enough read. However, all of this makes it especially disappointing when the game abandons any semblance of subtlety to crowbar in a poorly designed, annoying boss fight.

variation as the game's vanilla gunplay simply can't match the rush of wielding your time powers. But for the most part *Quantum Break* manages to feel quite unlike any other cover-based action game. Your powers can also be upgraded by finding hidden chronon sources (chronons being the particle responsible for time's progression), allowing you to stack up more bullets when using Time Stop, or temporarily revealing foes' positions in the moments after using Time Dodge.

Enemy encounters are interspersed with exploration and environmental puzzles, but some moments feel contrived. An early problem requires you to reach a raised platform by using a cherry picker, which inexplicably retracts every time you stand on it and needs to be frozen with Time Stop. Another sequence requires you to reach an open first-floor window in an atmospherically rendered trainyard, but forces you to take a circuitous route across carriage rooftops when a pile of stacked boxes near the window – the highest of which cannot be climbed for some reason – would be a considerably more sensible option.

These moments, the heavy reliance on in-game text, and some rudimentary checkpointing highlight a tension between Remedy's ambitions to innovate with interactive storytelling and a reliance on traditional gameplay mechanics. But while it doesn't always gel in a way that feels genuinely new, there are enough successful unfamiliar concepts here to make *Quantum Break* feel like a step forward for Remedy, ensuring that the game stands out in a way that can only benefit Xbox One as a whole.

7

Post Script

Interview: Sam Lake, creative director, Remedy

Remedy adopts a 'ready when it's ready' approach to game development, focusing its energy on fewer projects and taking its time with its creations. Creative director **Sam Lake** may exude the same kind of thoughtful confidence, but his frenetic energy is a surprising contrast to the methodical Finnish studio's outward appearance. Here, we discuss the groundbreaking aspects of *Quantum Break* and the steep learning curve they created.

How have you enjoyed working with live action?
We've been doing little tests with live action as a component [in previous games] and we wanted to take a bigger leap in that direction. It was challenging and there was a lot of learning along the way. Creating a big game like this is an iterative process. Not every idea you have will work, and part of getting to something good means you sometimes need to change direction. Whereas with the traditional live-action production method, once you're beyond the script being locked, you're in a very rigid schedule. So it took a lot of figuring out to get to the point where we had a good plan for creating both elements.

Were there any seismic changes along the way?
The original idea for the show was that it was disconnected. We'd have a game and a show, and while the show would run parallel during the same crisis and in the same place, we'd have a different set of characters going through their own storyline. Along the way we decided to be more ambitious and have crossover – I felt if we could do this with an interactive narrative then we're doing something nobody has done before.

What additional challenges did that bring about?
We kept pushing the show schedule back. We agreed to shoot it as late as possible to when we'd got through prototyping on the game side, had levels in place and scenes that worked. Only at that point did we lock the script and the branching stuff.

The facial performances stand out particularly.
Coming out of *Alan Wake*, the whole team felt the story we told would've been better if the facial animations had been closer to the actors' performances. So we made a firm decision at that point that we would push our technology and focus on that aspect. We created a surface-capture studio for facial expressions and built a scanning lab of our own for high-detail head captures. And then, of course, a lot of work went into the actual pipeline of translating all of that data into something dynamic so that the animators can tweak and polish things where necessary.



"We used surface capture for every in-game line – I don't think any other game has done that before"



How did the performance phase go?
For the mo-cap sessions we had helmet cams, so all the facial data was already captured, but the detail level you can get today with that technology is not as high as we can pull off in the surface-capture studio. So we brought the actors back for all of the close-ups and re-did the performances – they watched the mo-cap performance and then acted it out again. And when our actors came to Finland to be scanned, we had them visit a dentist where we took moulds of their teeth so that we could get a model that we could scan and put into the game. We used surface capture for every in-game line as well – I don't think any other game has done that before.

How difficult was it to balance all of the time-power dynamics involved in the combat?
It was a long journey! There were many prototype time power ideas added or abandoned, and slowly we got to where we wanted to be. Originally the game was just frozen scenes, which is kind of cool but gets old fast. But in our engine, for a different purpose altogether, we had this state-recording function for objects, where you could capture an object in various states. That led to the idea of broken time and individual time lines for different components in a scene. I'm not the technical guy, but there really is all kinds of incredible stuff going on with the special effects.

Do any of the time-power ideas you abandoned particularly stand out to you?
With the state recording we had an early experiment with letting the player record a sequence of gameplay and then rewind it and play again with the recorded version of the character. But that ended up creating a lot of gameplay repetition, and pushed the game into more strategic territory. For a different game, I still think that was a really cool idea, but we wanted this fast-paced adrenaline rush, and that idea was holding that back.

How do you feel about concerns involving reading emails – that it can break up the flow of the game?
I understand it perfectly, and it fascinates me: it's a really interesting part of human psychology, this desire to not miss *anything*. But at the same time, it's clearly not forced on you. If all of that was on your critical path, you'd be really frustrated and would want to start skipping it, whereas when it's made optional through exploration, some players feel compelled to search for it and not miss it. The idea was always to add all of this in there because it makes it richer and deeper, but I feel it's something for when you replay the game. On the first playthrough you'll be skipping some of it, but then you can go back and dig deeper. ■

Adrift

Developer Three One Zero
Publisher 505 Games
Format PC, Rift (tested)
Release Out now

Given the grandeur of its setting, *Adrift* is a surprisingly intimate game. Opening in the aftermath of a catastrophic event on board the Hardiman Aerospace Northstar IV research space station, you find yourself in the space boots of mission commander Alex Oshima as she tries to piece together what caused the event and find a way home. But while the majestic wreckage of HAN-IV floats around you in the deadly vacuum of space, you'll witness events from within a space helmet with nothing but your own thoughts and an ever-decreasing oxygen meter.

This contrast of epic scale and introspective human tragedy is *Adrift*'s most powerful trick, making for a disarmingly moving journey through the sterile remains of a broken science vessel. When you open a door to what was once a corridor and is now a dark void awash with shrapnel, and float beyond the threshold of what remains to look down past your feet to the Earth below, the effect is exhilarating. Later on in the game we're forced to cross a large section of space in order to reach the relative safety of the station's hub section, our EVA suit's thrusters pushing us slowly towards our destination while minimalist electronica underscores the awe-inspiring view. For a game about survival, *Adrift* is transcendently peaceful.

Oshima's EVA suit sprang a leak in the disaster, and your oxygen reserves require continual replenishment from O2 canisters that float about the place or, later on, O2 stations. The suit's propulsion system also suffered damage, initiating an emergency mode, which shares your air supply for fuel (we're not sure if Hardiman Aerospace's engineers should be prosecuted for this innovation). So both breathing and moving put you in danger of suffocation, but at least refills are plentiful.

Additional suit-related dilemmas arise from bumping into anything, creating ominous fractures that form around the edges of your visor. Leaving this unchecked will lead to your suit's systems being further compromised, but repair stations dotted about HAN-VI will provide a quick patch up. The precariousness of your situation is further highlighted by the fact that the slow leak of oxygen stops whenever you find yourself in a portion of the station that hasn't been breached, making trips outside feel increasingly dangerous.

Avoiding smashing your suit into bulkheads and equipment is a tall order at first due to the idiosyncratic control scheme. Your thrusters allow you to ascend and descend, roll to either side and move on whichever plane you happen to be oriented, but keeping things graceful and in check requires gentle inputs and continual small adjustments. Despite the simplicity of the basics, the regularity of inputs required takes some mastery and makes navigation satisfyingly complex.

Three One Zero also fully explores the potential of a zero-gravity environment by positioning the fragments of HAN-IV in such a way as to disorient without confusing. You might enter a section only to discover you're upside down, up and down can just as easily be forward and back, or a potential route could be obscured by the angle at which it sits in relation to you. But chunks of station are also used to subtly suggest the way forward without ever looking contrived. *Descent* veterans will certainly enjoy the exploratory freedom, even if *Adrift*'s reductive mini map isn't up to the job of pointing you to your next objective.

Those objectives are always the same: four systems must be brought back online in order to activate the escape ships, and in all four cases that means finding the system's mainframe, fabricating a new core for it, switching on its cooling module, and finally installing the core. Variation instead comes on the journey to each of these areas, with each route made increasingly dangerous by exposed components, fast-moving debris and less clear signposting. Despite this slow trickle of fresh ideas and a few standout locations, the convincingly realistic design of HAN-IV results in a series of indistinguishable corridors and rooms which, while undeniably beautiful, combine with the repetition of grabbing oxygen canisters and completing similar objectives to make for a rather samey whole.

Even so, this is mitigated by the relatively short length of the game and suit upgrades later on that reduce your reliance on oxygen canisters and allow for more freeform exploration. The well-conceived and performed story, which unfurls via audio diaries, emails and the occasional transmission from Earth, provides surprises along the way, and the pleasure of proficiently manoeuvring your suit about the place never wavers.

Adrift earns its Intense comfort rating on Oculus's store by testing the limits of your body's tolerance for motion sickness as you somersault and barrel roll through space. But it's worth acclimatising for what VR adds to the experience: the claustrophobia of your suit's dwindling air is intensified by the feeling of being inside a space helmet with a visor centimetres from your face; and the dizzying scale of floating miles above Earth when outside the station becomes overwhelming.

In fact, *Adrift* is at its best when you're simply taking in the view and absorbing the gravity (or indeed lack of gravity) of your situation. A post-release update that adds a mode that allows you to explore individual levels (once they've been completed in the main storyline) with unlimited oxygen is a very welcome addition, but it's difficult not to feel that there was a middle ground to be explored between the game's two extremes. *Adrift* nonetheless remains an absorbing and remarkable game, and one of the most powerful illustrations of how virtual reality can transform our relationship with gameworlds.

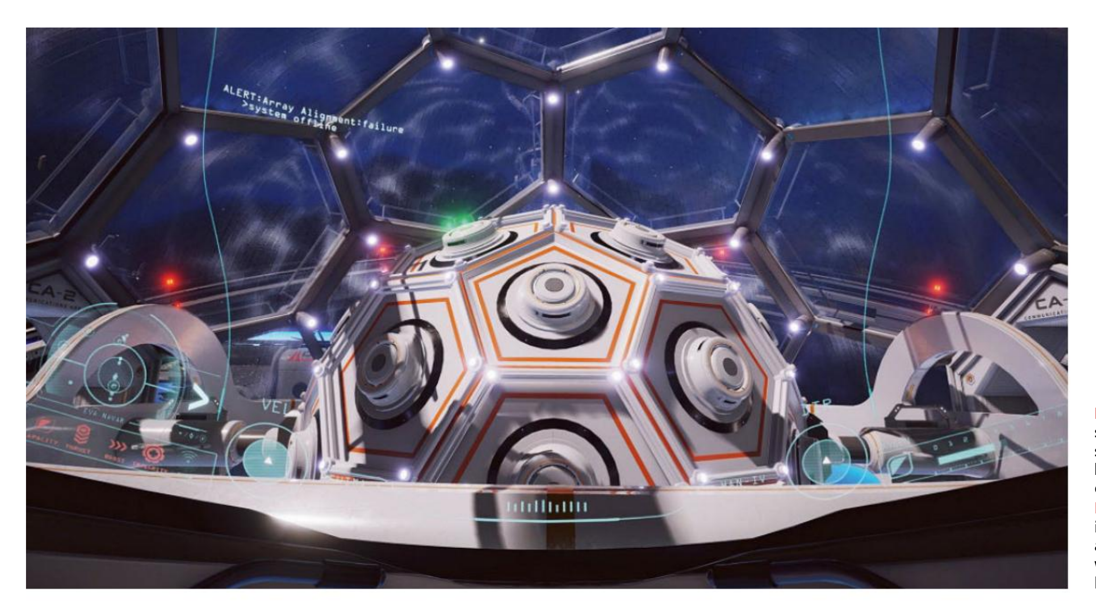
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Adrift is at its best when you're simply taking in the view and absorbing the gravity of your situation



SAS QUASH

Three One Zero employs some smart tricks to help reduce the potential ill effects from zero-G movement in virtual reality. The first is simply a brake, activated by holding both triggers, that quickly brings you to a halt – which is an especially welcome addition if you've built up more momentum than your stomach can handle. Similarly, a button that reorients you according to the portion of station that you're in offers a rapid escape from awkward positions. Finally, SAS Relief (which is named after the very real phenomenon of Space Adaptation Syndrome) overlays your visor with a black screen, which leaves only a small porthole into the world and reduces movement in your peripheral vision. It works well and can be set to automatically engage during potentially problematic sequences.



LEFT Imposingly large hardware such as this is contained within several glass spheres, and must be reactivated to establish contact with Earth and escape. **BELOW** While much of the station is stark and metallic, the plant and animal life lends additional colour while underscoring the fragility of life in space – not least your own



ABOVE The jagged edges, broken lighting and clouds of shrapnel conspire to produce hauntingly beautiful scenes, soundtracked only by muffled bangs against your suit, coupled with Alex's laboured breathing





The HAN-IV space station is a sprawling construction, which fans out from a central hub. Floating above the Earth in VR is, in the realm of videogames at least, incomparably stirring ▶

Post Script

Interview: Adam Orth, creative director, Three One Zero

Three One Zero creative director and game designer **Adam Orth** has a striking CV, having held positions at LucasArts, Electronic Arts, Sony Computer Entertainment, PopCap and, most recently, Microsoft. Here, the *Adrift* creator discusses the process of bringing a very personal project to life, and why he doesn't mind comparisons to Gravity.



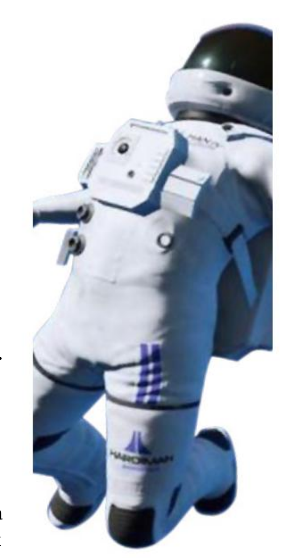
***Adrift* was designed for monitors and VR – was it a challenge to create both versions simultaneously?**
We're a team who've basically made console games our whole careers, so we approached *Adrift* like we would a console game. There are a lot of animations in the non-VR version where you get up close to a door and you open it with your hands, or you go into a repair station and it turns you around. We experimented with how those things work in VR and changed some animations [to make it more comfortable].

How did the SAS Relief mechanic come about?
There's this effect in VR called tunnelling, which shrinks the screen you're looking at into a small window and then blacks out the rest of it so that your peripheral vision settles in and you're looking at a concentrated version of the full screen. We tried that, and it just didn't really have the impact that we wanted. But we thought, 'Let's just make this part of the fiction and have it be a function of your helmet where an overlay comes down almost like a sun visor'. It was inspired by some of the things in *Metal Gear* games where they break that wall, y'know? The idea was to 'pull a Kojima' there.

Was there debate regarding Alex's movement speed?
The first 40 minutes is supposed to feel like you're fragile and broken, and right on the edge of everything falling apart. So being at a particular speed, and how that increases throughout the game, was intentional.

Did you have any concerns about the tension between the game's contemplative pacing and mechanical urgency?
Yeah, we did, but the idea was to play with those things. And we're seeing that it was a divisive move from some of the comments and reviews of the game. But I look at it this way: if I found myself in a destroyed space station and needing to get home, I don't know if that's a smell-the-roses kind of moment, right? Your oxygen capacity, and the way that you use it and it depletes, is a lot slower than I think people perceive it to be – I think the psychological effect of suffocation has an effect. I think the tension between those two things is very interesting. We made a really personal art game – it's not meant to be *Call Of Duty*. We really wanted to do something fresh and unique, and I feel like we did that.

"This is the ultimate environment. I knew looking down at all of humanity would touch people"



How did you go about designing the game structure?
We're a super-small team, and we only had X amount of time and Y amount of money to make the game. We wanted to make the best experience possible. I didn't approach it like a game, but almost like a big level in a game. While you have to do those same four things, we felt like each of those objectives exist in four or five very different environments. And that's how we chose to differentiate the task of building this system back up so that you can safely get home again. I feel pretty strongly that the experience of getting there and doing those things is much different to just doing it.

Floating out of the station above Earth is certainly a moving experience.
Yeah, we wanted to be able to tell a story without having any story. This is the ultimate environment. I knew just being in space and looking down at all of humanity would touch people. The narrative in *Adrift* is broken, just like the station, the suit and the main character. It's supposed to be messy and out of order and discovered in the way *you* discover it. I approached the narrative like seeds: I want you to hear a bit, get a little chunk and then hopefully when you're going across those great divides and no one's talking to you, you start thinking about what you just heard a couple of minutes ago.

Gravity came out just a few months after you founded the studio – how did you feel about that?
What happened was, after the Twitter incident where I made some ill-advised remarks while working at Microsoft, I just kind of disconnected myself from the world and started working on this game. Gravity had been announced, it was in production and due out at the end of the year, and I just wasn't aware of it at all. When I plugged myself back into the internet, I very quickly discovered Gravity while researching, and so I was like, "OK, I can't make this game now..." But some developer friends of mine who'd read my elevator pitch for it convinced me to keep going. Then Gravity came out and I went to see it. I was relieved because our game is very different to what the film turned out to be. And I realised how helpful it was going to be – people come to the game with an idea of what the setup is so I don't have to explain it. Plus, people are comparing the game to an Oscar-winning film, so it's a compliment! All in all, it added up to an hour of bad feelings over time, and I accepted it early on, so if people need to bring up Gravity as a descriptor for our game, I'm totally fine with that. ■

Star Fox Zero

The cultural phenomenon of the second screen is one with which we've all grown uneasily familiar. Who hasn't been so absorbed in the small device in their hands that they've missed a crucial line of dialogue, a twist, a goal? By the same token, we've been distracted by 1080p HD displays long enough to lose a life, to have time run out, to experience the frustration of being beaten by seconds to a zinger whose retweet tally is ticking upwards by the second. Wii U was conceived with the notion of relieving this tension somewhat, and yet its most fascinating games are those that choose instead to embrace it. After a turbulent start, you can add *Star Fox Zero* to that list, though it will take most players a while to reach that conclusion, and some may not have the fortitude to get there at all.

In previous *Star Fox* games your Arwing's lasers were bound to its orientation. Now, with the GamePad's gyro sensors allowing you to shift your aim by tilting the controller, and the sticks manoeuvring the craft itself, in theory you have total control. But in a three-dimensional space where you're attacked from all sides, a firstperson perspective alone isn't enough. The answer is to have the GamePad show the view from Fox McCloud's cockpit, and for the TV to offer a more familiar thirdperson framing. Ostensibly, this combination of internal and external cameras is intended to give the pilot access to more information than ever before. It is, in other words, for Fox's sake.

During the game's early moments you may be tempted to mutter a similar phrase. It is, or at least it seems to be, an impractical solution, especially since so many other games have allowed players to move and aim in different directions using dual analogue sticks. It's not so much about solving a problem, then, as creating one to be solved: how best to use two separate sources to form a complete picture. And that responsibility is thrillingly conferred upon the player.

True, it is more annoying than invigorating at first. But with time and practice, you'll gain an instinctive understanding of where you should be looking and when. It's the GamePad where your attention should be focused for the most part, since it's only here that you can effectively marshal your aiming reticle. But when you need to lock on to an enemy that's either large in stature or in health meter – or to pinpoint the position of a chasing craft – it's time to look up and reposition yourself accordingly. Until then, it's tough but forgiving, so long as you're not too reckless. Silver rings restore a large chunk of health; gold ones award you retries that send you back to a checkpoint rather than the start of the mission. But to survive, you'll still have to keep a calm head in moments of crisis, where the screen becomes crowded with bullets, missiles, falling buildings and darting enemy craft. And, excepting a brief excursion or two inside a hovering drone where the pace drops and you're given a welcome opportunity to draw breath, this happens rather a lot.

Developer PlatinumGames, Nintendo EPD
Publisher Nintendo
Format Wii U
Release Out now

Despite the familiarity of the characters and the story, this is strange, exotic territory, not quite like anything else



Despite the familiarity of the characters and the story – which hits most of the same narrative beats as *Star Fox 64* – this is strange, exotic territory. It's not quite like anything else you've played, and yet you'll recognise sensations from other games. In presenting both external and internal views of the Arwing simultaneously, *Zero* carries a surprising echo of the *Siren* series' secondperson perspective, which similarly recontextualises the player's understanding of 3D space by showing the protagonist from the standpoint of a pursuing Shibito. There's a substantial dose of *Affordable Space Adventures'* panicked fumbling, as you adjust to multiple inputs while attempting to cope with numerous outside threats. And, in the way you come to rely on aural rather than visual cues to avoid danger, we were reminded briefly of Jeff Minter's *Space Giraffe*. That *Zero* should call to mind such diverse, esoteric ideas is an undoubted strength.

Which isn't to say that it eschews some old-fashioned thinking. Its structure is lifted from its oldest antecedents, with stages designed to be replayed repeatedly until their seemingly insurmountable gold trophy targets have fallen, and all their secrets have been spilled once and for all. But this time around there are still more reasons to keep coming back. Completing optional objectives reveals intriguing new routes, leading to optional boss battles against the clock, or busy asteroid fields to weave through. Vehicular upgrades offer a fresh incentive to speed through completed stages and, perhaps, try to work out the arcane solution to earn that fifth and final hidden medal. It may seem a little preposterous to describe as generous something that can technically be finished in an hour, but this is a game with the mechanical depth to match its stern challenge, and enough tangible rewards to go with the evident gratification of learning to tame such a peculiar control setup.

With the spirit of Gerry Anderson alive and well in the snappy exchanges that pepper each stage – keeping non-interactive story beats to a minimum – *Zero* doesn't stumble too often after its troubling start. One or two mildly grating voiceovers are easy to overlook; less so a needlessly fussy final boss fight, and the minor but pervasive nuisance of recalibrating your aim. Otherwise, *Star Fox Zero* is a warming reminder of the strengths of its host hardware, albeit one tinged with thoughts of what might have been. After all, Nintendo is unlikely to bet the farm on similarly unconventional hardware next time. Wii U might be your last opportunity to experience delightfully quixotic, offbeat Nintendo games like this; all things considered, it's a chance you probably shouldn't pass up.

7





ABOVE The window of opportunity to hit certain targets can be very narrow, though it wouldn't be a Platinum game without occasionally providing you with the temptation to hurl your controller hard and far



TOP These aren't the prettiest or most detailed graphics on Wii U, but the simple, bold art suits the game – and makes the busier moments easier to read through a GamePad cockpit window. MAIN If you're struggling to escape enemies on the ground, the Landmaster can briefly take to the air; indeed, it's necessary to unlock Titania's alternate route. RIGHT You'll need to watch the TV more frequently when controlling the Arwing's walker form, especially during some brief platforming interludes. This black variant can be unlocked early with a Falco Lombardi Amiibo



EVE: Valkyrie

While other high-profile developers have backed the first wave of headsets, CCP's *EVE: Valkyrie* has become the poster child for VR. That's partly down to it having been associated with Rift for so long now (of the launch hardware pack-ins, it's certainly the most coveted), but also because of what it represents: a comparatively big-budget, competitive online shooter that promises to set the bar for VR's multiplayer potential.

If nothing else, it looks the part. Among a first wave of pioneering games whose graphical quality varies wildly, *Valkyrie*'s visual presentation feels luxurious: enormous shipyards, space stations and hulks hang imposingly amid indigo, cobalt and ruby nebulas; extraterrestrial worlds loom just beyond the battlefield; and a tangle of glowing red and blue fighter craft trails records the final manoeuvres of desperate pilots.

Your cockpit, too, is a pleasant place to inhabit. The UI is seamlessly integrated into the compartment, with the dwindling state of your health and shield available via a head-up display while your radar, speed, missile capacitor charge and battle standings are a quick downward glance away. It's a pity that this clean design language isn't replicated in the game's menus, which are a confusing, unintuitive mess – in the absence of a crosshair or pointer, selecting options by looking at them is often fiddly, and it's easy to get briefly lost among the unfocused, cluttered sub-menus.

Fortunately, controlling your ship is far more enjoyable. There's a subtle but satisfying inertia to manoeuvring, which makes ships feel both reassuringly substantial and usefully lithe. You can't come to a full halt (unless you get yourself wedged in the scenery), but holding B will slow you a little while the A button gives you a boost. Both are essential during combat, the former tightening your turning circle and enabling you to flip over and face a chasing enemy, and the latter (in combination with some judicious barrel rolls) offering a chance to escape from particularly tenacious opponents. It only takes a couple of matches before you're skilfully threading in and out of complex structures as you chase other pilots – or run from them – in a spectacularly filmic manner, and there's a surprising amount of nuance to be mined from the simple control scheme.

Unlike many early VR games, *Valkyrie* demands you use your ability to look around fully. Your first few matches will likely be lost due to a monitor-honed stiff neck, but looking around to assess the battlefield – not simply angling your head a little while tracking a target – is essential to survival. Rift's well-distributed weight and confidence-inspiring straps prove a boon in this respect, as once fully immersed in *Valkyrie*'s world, our head movements became frenetic, bordering on violent.

Awareness of your environment is further encouraged through the brilliantly conceived 'look-to-lock' missiles, which complement your main guns. Tap Y to target an enemy, and squeeze the left trigger to stack up a battery of missiles ready for launch (the total number available reliant on your recharging capacitor unit); then it's just a case of keeping your target in view – irrespective of your ship's relative orientation – while the projectiles close on their target. Your main cannons require more traditional aiming, but your HUD usefully displays a red square where you point the guns when leading a target. Should you find yourself on the receiving end of someone else's missiles, a recharging anti-ballistics system can be triggered by tapping X.

Developer/publisher CCP
Format PSVR, Rift (version tested)
Release Out now (Rift), October (PSVR)

Once fully immersed in Valkyrie's world, our head movements became frenetic, bordering on violent



SPACE BUCKS

While currency earned in the game should cover everything you need, *Valkyrie* also features microtransactions through which you can purchase Gold Bonds. These can be spent on exclusive ship customisation items (though only aesthetic upgrades), paying for the transfer of earned XP between ships, and buying XP-boosting Implants, which allow your pilot to learn faster. It will also be one of the ways that you can gain access to the game's legendary ships, which can't be built via blueprints. Other than jumping into a legendary ship early on, you can't buy your way to success in *Valkyrie*.

Ships come in three flavours: fighter, heavy and support. The first of these is a mid-range all-rounder that's ideal for taking into the thick of a dogfight, while the latter two represent *Valkyrie*'s tank and medic classes respectively. All three ship types can be upgraded as you progress, armour, shields and systems benefiting from incremental boosts, and there's a moderate suite of customisation options available (it will help if you're a fan of skulls and angel wings). Prior to battle, ships must be assigned to launch tubes to be available. The first of these is free, but additional ones need to be rented using silver earned in-game. Whatever their class, destroyed craft leave glowing green salvage, which can be collected by flying through it, the team's total haul shared equally among players at the end of a match. It comes in three variations (raw, component and prime) and can be used to craft new ships from blueprints unlocked as you level up. You can also find salvage in the exploratory Scout missions, which allow you to freely explore the game's maps and search out resources and voice recordings, here called echoes, of former pilots.

All of the kit you create can be deployed in two multiplayer modes, team deathmatch and control. The latter sees pilots drop drones at objectives to syphon power and degrade the enemy's war effort, and employs a *Battlefield*-style ticket system in which battleships hold finite clones of fallen pilots to send into combat. There's also a wave-based survival mode, with two difficulty tiers, that can be tackled on each map.

It's a great deal of fun for the first 20 minutes, but once you've mastered your ships and applied your favourite skull decals, there's little to keep you hooked. Combat is enjoyable but lacks depth even with the three ship classes on offer, and the number of (really rather good) singleplayer missions is disappointingly low. For its opening minutes, *Valkyrie* is a stunning example of what's possible in virtual reality. But ultimately, when the VR-driven awe of finding yourself in the middle of a beautiful, dramatic space battle begins to fade, there's little more than an average, and decidedly shallow, shooter left in the vacuum that remains.

5





ABOVE A handful of levels offer up singleplayer missions in which you relive events as experienced by since-fallen pilots. The sense of speed when launching into or boosting through an area reaches dizzying levels





MAIN *Valkyrie*'s cockpits have been considerately designed to extend a fair way ahead of you, which ensures that your brain always has something to cling on to as you spiral and loop through space. ABOVE Allies leave blue trails, while enemies leave red ones, making the battlefield easy to read even during more chaotic moments. Your HUD marks up friendlies and foes, too, for additional clarity. LEFT While getting into the thick of the battle is an exciting prospect, it's better to hang back or else risk being swarmed by enemies. To be successful, teams must work together to ensure individual pilots aren't isolated

Chronos

Developer/publisher Gunfire Games
Format Rift
Release Out now

Playing this Oculus Rift exclusive takes us back to the days when we first grasped a pad in our hands. Not because it's a 2D retro throwback; it's a hard-edged 3D action RPG. And not because it has buckets of warm charm; it's a grim fantasy fairytale which perhaps takes itself a little too seriously. It's *Chronos*'s innovative utilisation of VR tech that inspires a kind of giddy, almost childlike, rapture.

This is primarily down to the game's world, and its delivery directly into your eyeballs. You view *Chronos*'s protagonist, an unnamed hero/heroine sent out into an ambiguous post-apocalypse fantasyscape, in thirdperson. But rather than have you also control the camera (and potentially cause untold havoc with your stomach lining), you view each room or area from a fixed perspective. From this CCTV-esque orientation you can look around, angling the otherwise stationary camera to get a handle on the surrounding environment. You can look up at the sky after stepping out of a dank cavern, look over the edge of a cliff face when traversing slick precipices, or, indeed, eyeball your action-figurine-like avatar. The latter act sees our hero tip their head to glance back at you, a playful recognition of this affirming new agency you've been afforded.

It may seem strange to frontload a review of an action RPG with notes on the camera system over the combat mechanics, the character building, or indeed the world itself, but it can't be overstated just how much of an impact that this system has on the feel of *Chronos* as a whole. It's like stepping inside the frame of a painting and observing its construction from the inside. Also, it powers some cheeky gameplay tricks, such as peeking around corners to see what's in the next room, or giving you a better mental handle on how the interwoven environments connect together.

Outside of this camera system you can see the numbers beneath the various gameplay paint strokes. That interconnectivity, as well as the weighty sword-and-board combat, has clearly been inspired by From's work. But while lifting a portcullis or activating an elevator might unlock a shortcut in typical *Souls* fashion, and you've got the familiar block/parry/swipe, lock-on-focused fighting, neither of these elements are as grand, nor as clear, in this particular treatment.

The combat feels especially undercooked, in spite of, or perhaps in some cases because of, the intriguing way it's delivered to you visually. A lot of your effectiveness in a fight boils down to your ability to read enemy animations, gaining familiarity with their tells and reacting appropriately after accruing knowledge through previous encounters with them. A mace-wielder's swipe will smash straight through a sideways dodge upon your first encounter with it, but the next time you meet you'll read the strike before it comes and know to step backwards out of range instead, or just block it. But we see all of this unfold from an altering viewpoint at the whim of the world. Fights occasionally play out in the far distance, and you have to crane your neck to get any idea of what's going on, or even pull enemies over to the other side of the room in order to see the fight unfold. Doing this feels bizzarely artificial, and deadens much of the sense of immersion in the world of *Chronos* that its camera system works to create.

It's like stepping inside the frame of a painting and observing its construction from the inside



When not in combat there's a rudimentary selection of character-building stats to juggle, and it's here that *Chronos* throws its other bold new ingredient into the mixing bowl. With each death, the protagonist ages by one year. The older you get, the less keenly you feel increases to stats associated with youthful vigour. Strength becomes less important, while intellect and magic skills come more to the fore. While this neatly mirrors the *Souls* player's journey from melee-focused knight to experimental sorcerer across multiple playthroughs, it also leads to a keen lack of ownership of your character on the player's part. We're not really building *our* character, but the one preordained for us, not speccing our own build so much as following a set path. When the avatar outside of the stats is afforded little personality beyond that glass-eyed glance at you every so often, it's hard to feel very much for them.

So the best thing about *Chronos* remains that incredible sense of place given to the world, thanks to the fascinating VR angles. But it should also be noted, especially considering the game's VR exclusivity, that the physical act of playing it can be made more frustrating thanks to the hardware limitation. This is a long game, in a genre at its best during lengthy sessions.

The hardware, however, is not. *Chronos* has been handed a 'Comfortable' rating by Oculus, and as far as the stomach is concerned that's the right decision, since the game does not inspire nausea. But you're still wearing on your face a piece of hardware that is steadily increasing in temperature. As such, for comfort's sake, playing in hour-long bursts makes the most sense. When you're deep into learning a boss encounter, or struggling to overcome one of the game's puzzles, this can be infuriating. Not because you have to stop playing and you don't want to, but because your every action's worth is weighed against the time you're able to play. For a game named after the personification of time, it's very easy to feel like you're wasting yours.

The things that are frustrating about *Chronos*, and the things that are immediately arresting about it, are linked inextricably with the technology that delivers it. As the hardware improves, such criticisms should diminish. But that initial feeling of being a tangible part of the inside of a videogame will forever be fantastic, even if much of the rest of the experience feels like it's been done before.

6

RIGHT Before you get to swing that hammer about, you're told by an old village seer to 'take a seat' as she recounts a tale – essentially informing you that you're well and truly in this for the long haul. MAIN While most of the world you explore is absolutely jam-packed with dwarves, dungeons and your typical fantasy fare, there's an especially intriguing modern military vibe to some areas. BOTTOM As the camera flits between rooms it's easy to become more than a little confused as to what directional input will lead to which action onscreen. It's like tank controls never died









ABOVE When traps are placed in new rooms there's almost always a clue for the most deductive players to clock. A telltale grunt from a shadowy corner could indicate an ambush in wait, so keep *everything* peeled

Ratchet & Clank

Depressingly, it's been 14 years – a long time in a medium that moves at such a pace. The gap between *Donkey Kong* and *Super Mario 64* is only a year wider; likewise, *Pole Position* and *Gran Turismo*. In a similar span of time, we went from *Asteroids* to *Doom*. And now *Ratchet & Clank* to *Ratchet & Clank*. If at first it suggests we need to accept that change now comes in much smaller increments, it's also a sign of how far we've come. Where the original was likened in critical circles to a Pixar production, this tie-in to a new animated feature makes it clear we're still some way short of Lasseter and company. Clips from the film scattered throughout a reworked narrative suggest the kind of two-star release that keeps kids occupied while parents fruitlessly check their watches for the duration.

The game part is rather better. It's a significant reworking of the original by a developer imagining how it might be designed if it were making its debut this year. The thrust of the story is broadly the same – a long-eared feline/human hybrid and a diminutive robot reject from a factory production line team up to save the galaxy from a megalomaniacal businessman – though it works in characters and other plot elements from later entries. It serves its purpose adequately, providing light motivation for the kind of planet-hopping romp that seems to have all but died out since the PS2 era, but that its creator has been trying to defibrillate ever since.

Disregarding spinoffs, this is the tenth *Ratchet & Clank* game, and anyone possessing even a passing familiarity with the series will have a good idea of what to expect. For its part, Insomniac has no intention of failing to meet those expectations – and, seemingly, little desire to surpass or subvert them. As Ratchet, you'll run around alien worlds, firing an outlandish arsenal at waves of aggressors while solving the odd light environmental puzzle. Occasionally, you'll play as Clank, solving marginally more complex conundrums that tend to involve more busywork than mental exertion. Elsewhere, there are objects to fetch, gaps to swing across, rails to grind, hoverboard races to win, guises to don, and doors to hack. Plus ça change.

There is, of course, comfort to be found in such conventions, especially when they're realised with such competence. There's a certain effortlessness to *Ratchet & Clank* that can only have been achieved through hard work: from the responsive handling to the zippy pacing and the snap, crackle and pop of combat, everything speaks of a smart, organised team doing its job well. It may never quite set your pulse spiking, but rarely will you find yourself letting out an irritated huff. And though the script is full of characters you occasionally wish would stop talking, there's something endearing about its ceaseless attempts to make you smile. Once or twice, it might even succeed. Hardly an enviable hit rate, but it's more than many games manage.

Developer Insomniac Games
Publisher SIE
Format PS4
Release Out now

So high are the production values that it's easy to see why the industry doesn't make them like this any more



STAR TRADER
Optional objectives invite you to spend longer at each planetary stop, from earning additional trophies in hoverboard races to collecting more Telepathopus brains in return for bonus kit. But by far the most persuasive reason to explore every nook of these lovingly redesigned worlds is the addition of collectible trading cards. These aren't merely tucked away at the end of branches from the crucial path, but are coughed up by defeated foes; indeed, many weapon upgrades increase your chance of cards dropping. They come in themed sets of three, the completion of which gives you further buffs; to fill in the gaps in your collection, you can swap five duplicates for any card. An additional set of hard-to-find variants unlocks the final gun, the powerful RYNO.

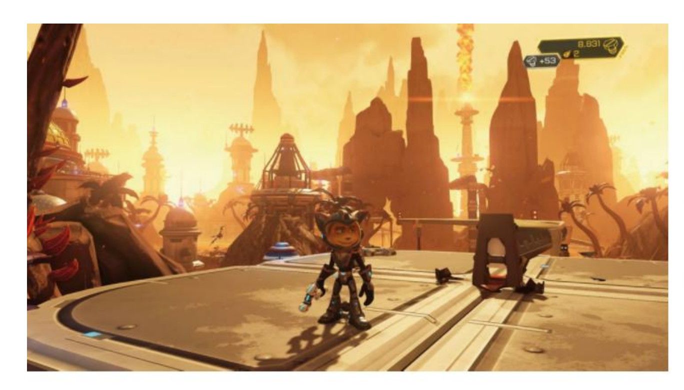
To describe *Ratchet & Clank* as a platformer is misleading: the titular Lombax's jump is more often used to dodge missiles and bullets sprayed from nearby turrets than to leap over gaps. Combat is and always has been the focus, and Insomniac has got pretty good at it over the years. The studio subtly shifts the tempo throughout, asking you to deal with aliens at mid-range before launching waves of robotic attack dogs to snap at your feet. Limited ammo forces you to engage with a wider range of weapons, which have been pulled from the entire series. The Groovitron, introduced in *A Crack In Time*, pumps out a disco beat to which no enemy grunt can resist getting down. *All 4 One*'s Warmonger fires rockets that land with a thud. *Going Commando*'s Sheepinator – well, have a guess. There are fresh additions, too. The Proton Drum fires out throbbing pink shockwaves that zap anything caught within their radius, while the Pixeliser is an instant classic: a shotgun that turns enemies into blocky sprites, eventually causing them to fragment into voxels.

Battles are usually challenging enough to avoid mindlessness without ever becoming frustrating roadblocks, and can offer quite the spectacle, especially when multiple Buzz Blades are ricocheting between opponents, as scores of bouncing bolts fountain up from the defeated. Collecting these has always managed to satisfy some deep, primordial desire for all things shiny. And even when you're not firing, there's plenty to gawk at. The Pixar references may be obvious ones to make, but such comparisons do Insomniac's artists a disservice. Consistently imaginative, detailed and gorgeously lit, its settings are a reminder of how the fantastical can easily trump the photorealistic.

So high are the production values, in fact, it's easy to see why the industry doesn't make them like this any more. In an era of procedural content and sweeping sandboxes, there's something quaint about a game featuring lavish, elaborate, hand-crafted spaces in which you rarely spend much more than an hour. It looks and feels expensive, yet it's being sold at a budget price. Whichever way you slice it, those sums don't seem to add up, even factoring in the possible attraction to an audience of school-holiday cinemagoers and the swell of goodwill Sony has been riding since PS4's launch.

If technology's inexorable march suggests *Ratchet & Clank* may be among the last of its kind, there are plenty who would respond with a disinterested shrug. This, in truth, will do little to sway that opinion. Nonetheless, it's solid, three-star entertainment: as pretty as it is inconsequential, as likely to be thoroughly enjoyed for the dozen hours it lasts as it is to be forgotten within weeks. It's not taxing or provocative, it will leave you neither upset nor elated; it simply wants to give you a good time. Sometimes that's enough.

6





ABOVE Clank spends most of his time turning bots into springboards and bridges in order to solve puzzles. These sections are hardly difficult, though if his pursuer catches up, a single hit is enough to force a restart





TOP Your DualShock 4's Share button might get a workout on your visit to the desert planet Aridia, with a grindrail tour giving you some sumptuous views. They distract well from the mechanics of jumping from one rail to another, which still feels oddly sluggish. MAIN Weapon upgrades are obtained by spending Raritanium crystals, harvested from deposits scattered throughout the universe. It's worth investing in increasing a weapon's clip size, particularly for boss fights, so you're not forced to swap guns too often mid-battle. RIGHT Levels are large enough that you'll welcome teleporters and transport options to carry you back to your ship. This cityscape is skilfully repurposed for a ship battle, a ground assault and a set-piece aboard a moving train that benefits hugely from such handsome staging

Hyper Light Drifter

The Drifter's respawn animation takes seconds. At times, it feels like an age. You'll likely find yourself irritatedly thumbing the face buttons, but he won't rise any quicker. In a world where death comes swiftly and often, this is a bold choice, but a necessary one. It's a reminder not to rush back into the fray; that there's only so much punishment you can take. More crucially, it says much about the Drifter himself. Even without foreknowledge of the game's semi-autobiographical elements, there's something moving in the way he slowly hoists himself to his feet. His body may be weakened by debilitating illness – and, in our hands, by frequent defeat – but he's prepared to defy it. His spirit wills him to go on and so, despite everything, he does.

So, despite everything, will you. *Hyper Light Drifter*'s world is so copiously stuffed with secrets and riddles that, even without the luminous pixel art to compel you to continue, there's always an impetus to investigate further. So reluctant is it to reveal anything without your prompting, in fact, that it withholds all but the most essential information. Within moments, you'll have learned how to heal – which in itself says a lot – but your basic sword attack and dash move are yours to discover. As, too, is the currency. The map, and an early glimpse at what looks like some form of schematic, suggests your main goal without explicitly revealing what your motivation might be for achieving it. And while the southern exit from the central village hub is obstructed, you're free to wander north, east or west.

The early 2D *Zelda* games are an obvious touchstone, though you're not a wide-eyed explorer like Link, but a nomadic warrior, consistently facing unfavourable odds. Often you'll encounter beasts in the field but, as per tradition, you'll sometimes be barricaded in with a host of opponents, and only by defeating them all will you remove the blockade. Defeating them requires careful crowd control, not least as the spaces you're confined to can be claustrophobic and cluttered. You'll soon understand the importance of prioritising threats as you alternate between swinging your sword and firing your currently equipped gun. Staying at a safe distance isn't always possible, because the only way to refill your ammo is to land a successful melee attack, while a lengthy cooldown for your grenade means it should only be used in the direst circumstances.

The expressive animation conveys conviction and precision in every dash, swipe and shot, but this isn't a game that will allow you to chain endless combos, and it laughs at the idea of invincibility frames on your dash or charge attacks. Healing takes time, requiring you to make space where it's usually at a premium (think *Dark Souls*' Estus flasks rather than *Bloodborne*'s vials). As such, there's a sweaty desperation to combat that only heightens the elation at surviving the more difficult battles. Should you perish, Heart Machine does you a rare kindness by returning you to the room prior to the one in which you fell.

Developer/publisher Heart Machine
Format Ouya, PC (tested), PS4, Vita, Wii U, Xbox One
Release Out now (PC), TBA (Ouya, PS4, Vita, Wii U, Xbox One)

Even without the luminous pixel art to compel you to continue, there's always an impetus to investigate further



Not that 'room' is always an adequate description for these intricate spaces, which can be elaborate, sprawling affairs. Secrets are squirrelled away in distant corners and hidden alcoves, behind breakable obstructions and across chasmal gaps, negotiated via concealed platforms that flash into existence at specific trigger points. Over time you'll notice familiar tells – floor lights trailing into walls, scraps of paper, suspicious clusters of ice crystals – and although there's too much wall-hugging involved in unearthing some surprises, largely you're simply invited to study your environment more closely.

And why wouldn't you, when it looks this good? Neon aquamarines and magentas add an '80s-sci-fi sheen to familiar mountain, desert and forest biomes. Birds flutter and waters ripple around a flooded temple as you pass by a drowned Titan, the mouth of its moss-covered skull agape, its fingers clawing at the surface. There are ruins and robotics, tangles of vines and wires, suggesting a battle of science and nature, past and future. You'll stumble across piles of bloodied creatures; later, you'll look around a room strewn with the warm corpses of the recently slain. As grim as it gets, there are glimmers of life and hope in the few figures you encounter, even if their gnomic utterances and pictorial tales leave you with as many questions as answers.

The soundtrack, too, speaks to a bleak worldview, which unobtrusively supplements the unsettled, diseased milieu. At times, it's hard to tell where the music ends and the effects begin: in quieter moments it drops to a faint whisper, and elsewhere you'll hear bassy, portentous rumblings. The sign of a world with a gnawing ache at its very foundations, perhaps? The thrum of some ancient machinery whirring deep beneath the surface? Or a herald of imminent danger?

It's usually the latter – and just occasionally, the intensity can feel punishing rather than exhilarating. After a third or fourth enemy wave spawns in a single room you wonder if you've missed a trick and they're going to keep coming forever. And your heart will sink after failing at the far end of an extended gauntlet when it dawns that the entrance, and thus the checkpoint, was the best part of ten minutes ago.

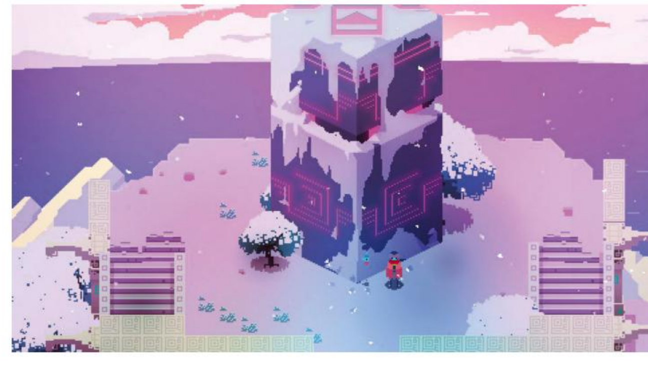
Yet you'll grit your teeth, because there's always a reason to continue – whether it's a fresh mystery, a showy display of kinetic swordsmanship and gunplay, or a thrilling mismatch against a towering guardian. As much as you may have found, there's a persistent sensation there's plenty you haven't. Look again at the Drifter as he summons the will to pick himself up once more, and be inspired. Crumpled, bruised, hacking up blood but still somehow determined to carry on: if he can keep going, then you surely can.

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ABOVE The enemies and traps at each compass point clue you into the tactics used by the boss behind the final door. Their health bars may look long, but with an upgraded move set and better weapons they're beatable





MAIN There are alternate capes and swords to be found, though most will prove elusive to all but the most committed player. One requires you to chain-dash around a cramped room for an absurdly long time – lose the rhythm or brush against a wall and the counter instantly resets.
ABOVE We headed north first, but with hindsight, that might not have been the best idea. The eastern route is sinuous and occasionally confounding, but its guardian is the easiest of the lot.
LEFT By and large, the game is generous with health packs, but on occasion you'll find yourself struggling across multiple screens, one hit away from death. Warp points recover your health but returning to the place from which you teleported to safety can be quite a trek

Dead Secret

Though playable on flat screens, Robot Invader's curious murder mystery has, according to the developer's website, been designed as a virtual reality experience. Indeed, given the heightened sense of vulnerability you'll feel as you investigate a murder scene and a series of increasingly more disturbing supernatural events, it would be a shame to play the game in anything other than its intended form.

Cast as up-and-coming journalist Patricia Gable, you embark on a firstperson puzzle adventure looking into the recent death of Harris Bullard – a man with enough enemies to suggest foul play. It takes place entirely within the grounds of a moderately sized farm house and its outbuildings, and while you'll initially be funnelled by awkwardly placed packing boxes and locked doors, soon there's a good deal to explore.

You navigate by clicking on the object you want to stand next to and are then either spirited over to it via a slow-paced on-rails saunter, or – if you've switched to Comfort mode – warp instantly to the spot. While the latter is intended for those with greater sensitivity to movement in VR, using it also significantly ups the pace of the game, and as a result we soon abandon the patience-testing walking animations. The need to find specific spots you can stand in can make navigating some of the busier spaces that appear later in the game frustrating, but overall it's an effective design that makes *Dead Secret* perfectly suited for use with the Oculus Remote. Functioning like a mouse pointer in 3D space, it proves to be a particularly comfortable way to play (see 'Remote possibility').

Much less pleasant are your encounters with a stalking presence that wants to add your chalk outline to the house's existing one. Your paths cross infrequently, which mostly poses no real danger, but on a couple of occasions you need to escape or hide. These moments are representative of the game at its best and worst: the chilling proximity of an aggressor closing in on you in virtual space will turn your stomach, but the prescribed nature of the sequences – which suggest choice but actually only have one solution – and the resultant need to replay them undermines their power.

More consistent is the creeping sense of dread throughout, an atmosphere that's built on Robot Invader's preference for slow realisation over jump scares. The story, too, does a great job of pulling you further into the world and, while the voice acting falls far short of pre-eminent genre exemplars such as *Gone Home* and *Soma*, as with everything else in the game your connection to it is enhanced to a surprising degree by experiencing it through VR.


6

Developer/publisher Robot Invader
Format GearVR, Rift (tested), PS3, PS4
Release Out now



REMOTE POSSIBILITY
The Oculus Remote's ergonomic design quickly lets you forget you're holding it, and the raised buttons and differing textures make using it simple. The centre button is used to select objects, while the ring that sits around it functions as a D-pad, allowing you to reorient your position relative to the room. It doesn't always stick to compass points, however, and occasionally getting lined up can be a little fiddly, but it does at least encourage you to use your head to look around.

There's a great deal to interact with in *Dead Secret*'s environments – even the cushions can be lifted in the course of your investigation. Being able to bend down and look underneath things increases your immersion



Lucky's Tale

What's in a name? Not much, really: *Lucky's Tale* is a 3D platformer starring a fox called Lucky who hits things with his tail. It's hardly the most imaginative conceit, or the most modern, though as with many Rift launch games it's lent a special air by the technology that powers it. It may be a game idea borrowed from '95, running on hardware with origins in the late '80s, but as a moving platform takes you through a tunnel in which you instinctively duck out of the way of tangles of vines, before you pop out above in a colourful village whose denizens, obstacles and traps stretch off towards the horizon, the sensation is thoroughly 2016.

Still, at its core, *Lucky's Tale* is every inch the launch game you'd expect from a publisher whose CEO, Jason Rubin, co-created *Crash Bandicoot*. Enemies – including bats that lob bombs, and bees that fire projectiles – are dispatched with a tail swipe or by jumping on them. Hazards play with the 3D aesthetic: spike-covered logs swinging back and forth on vines, cuboid platforms that rotate every few seconds. The level design itself has been built with up-close 3D in mind, generally pushing you into the screen with sideways detours forcing you to keep an eye on your shadow when positioning jumps.

Coins are everywhere: strewn about the level to signal the critical path, shimmering on far-off platforms, or invisible until you draw near. They're safely ignored: a hundred earn you a 1-Up, but lives are never an issue

Developer Playful Corp
Publisher Oculus Studios
Format Rift
Release Out now



FAST-TECH CAMERA

While your first playthrough of each level is largely an exercise in pushing forward, the two alternate modes that are unlocked on completion bring camera problems to the fore. One has you seek out 25 hidden red coins; miss one, and you're better off using the teleporter to go back to the start rather than trying to retrace steps. A time-trial mode, meanwhile, sees you frequently having to wait for the camera to catch up. Such issues would be less of a problem were it not mandatory to dip into these modes in order to progress through the game.

At its best, it's the sort of game Nintendo would've made had child-safety concerns not compelled it to make 3DS's stereoscopic view optional, rather than mandatory. Developer Playful Corp lives up to its name, using the automatic camera to position collectibles almost but not quite out of sight behind level furniture. In later levels, switches that you flick with a tail swipe cause walls to twirl 180 degrees, and reveal previously unseen paths. Rift's in-built stereo headphones mean the studio can use audio as a mechanic too, alerting you to the nearby presence of an essential item with a faint sound effect that loudens as you draw closer to it.

Despite the fact you're guiding Lucky through a 360-degree space, you have no control over the camera, and it's this that means *Lucky's Tale* has been given the Moderate comfort rating by Oculus. The camera moves slowly to dampen the inherent discomfort in your lack of control of it, but it's often too slow, particularly after Lucky rises or falls at higher-than-usual speed. We've walked straight off unseen ledges while the camera was still following us up a hill, and fallen out of sight after a long drop to a faraway platform. And backtracking is unworkable, the camera moving so slowly that Lucky often seems to be walking into your frontal cortex and straight out the back of your head. Despite its name's implications, this is a better game when you're following Lucky's nose, rather than his tail.

6



Final Approach

Tell you what: how about you put out your own damn fire? We're air traffic control, not the fire department. Or so we thought. So frequently are our skies clogged with passenger jumbos, military jets and light aircraft with engines aflame that we spend as much time in *Final Approach*'s first level on the ground, aiming a hose at a propeller, as we do up in the sky.

Which is a crushing shame, because that's where *Final Approach*, as the name implies, is at its best. The pre-release demo was one of the highlights of our early days with Vive (see **E**292). The core mechanic, of using the controller to point at a plane or helicopter and draw its landing path in a 3D space, is still delightful, but in the transition from demo to full game Phaser Lock Interactive has decided that a little variety is needed. So it flings in a few distractions, adds some needlessly onerous fail states, and just keeps on going and going.

As well as putting out fires, you'll find yourself zooming down to ground level to scare birds off the runway with an air horn, turning on generators, even aiming gun turrets at wayward drones. Ignore them and accidents will happen, depleting your Karma bar. If it's empty, you'll have to restart – something to be avoided at all costs given levels are so overlong. So down you go, leaving your post, perhaps failing to notice a fighter on a collision course with a passenger jet, or a helicopter running out of fuel. All of this distracts you from the core objective of keeping the skies clear – which you need to do to progress. Your current task might be to help a set number of helicopters land, refuel and take off again, but they won't even appear in the sky unless you clear out the current holding pattern to make room for them. Every fire extinguished or drone shot down is time that would be better spent on the task at hand. Missions, as a result, seem to last forever.

And before long, they're frustrating for different reasons. An airport terminal is enough of a headache with its criss-crossing runways, and the need to get passenger, military and private aircraft to different terminals. But Phaser Lock has decided this isn't complex enough, adding a fleet of AI-controlled trucks that potter around the place on set routes with scant regard for their own safety. They plough straight into planes that are crossing their path, chipping away at your Karma, though by this point you won't really care – you'll be looking for something else to play. A late detour into an alien invasion shows the extent to which Phaser Lock has struggled to turn a convincing demo into a compelling game. The result is a dismally paced and hugely frustrating expansion of a fine core mechanic, and a badly missed opportunity.

4

Developer/publisher Phaser Lock Interactive
Format PSVR, Rift, Vive (tested)
Release Out now (Vive), TBA (PSVR, Rift)



VOCAL DISCORD

The chocks-away, tally-ho Brit narrator has a somewhat wavering accent – something we're more prone to noticing than players elsewhere in the world, perhaps, but Phaser Lock has them covered too. As pilots in need call for your help over comms, the wonkily voiced stereotypes make it difficult to distinguish a Scot from an Indian and a New Yorker from a Texan. But then *Flight Control* has enough problems already; in this context, sounding like a culturally insensitive '70s sitcom feels almost appropriate.



The green arrow signals an aircraft in need – this one will need to land, taxi to the service hangar, then park up at the terminal to refuel. You'll need to land just about everything, however, for a three-star mission rating

Job Simulator: The 2050 Archives

For so long a signal of a dry-as-a-bone genre, with enormously detailed adherence to a complex real-world pastime, these days the word 'simulator' has been well and truly appropriated by many a wag. Now the term is as likely to mean a comedy goat-physics game as it is an impenetrable military flight sim. *Job Simulator*'s boxy, low-poly aesthetic suggests it falls in the former camp, but in fact it sits somewhere between the two. It is a game of comedy, certainly, but it is grounded in reality: you are not wrestling with a comical physics model, but using Vive's flawless head and hand tracking to carry out a series of menial tasks.

The action, if you can call it that, is set in a museum which offers the robots of the future a chance to experience unskilled jobs from the era when humans ran the world. As an office grunt, you work your way rapidly up the corporate ladder by knocking out motivational presentations and cooking (both literally and figuratively) the books. As a gourmet chef, you burn steaks to a crisp, make sandwiches with whole tomatoes in them, and put out fires when it all goes wrong. A stint behind the till of a convenience store has you grilling hotdogs, knocking up slushies and checking fake IDs; as a car mechanic you'll either fix what the customer wants fixing or sabotage a vehicle on the orders of your sleazy boss.

The game's great achievement is the way it brings so many things within reach, even if your playing area barely scrapes past Vive's minimum size requirements. In the kitchen a dial switches between blender, toaster, sandwich board, microwave and sink; a switch toggles between the grill and a hob with a stock pot, while a lever lets you alternate between fridge and store cupboard. In the garage, a single vending machine has everything you need, while vehicles can be rotated to bring the part you require within easy reach. It's smart, and means this is one of the most comfortable games you can play on Vive. You're constantly mobile, turning round, bending down, using both hands – but you don't have to move around too much, and quickly forget the long, thick cable that tethers headset and PC and is Vive's most frequent immersion-breaker.

While *Job Simulator* cannot ape the likes of *Goat Simulator* by getting yuks out of its controls, there are still laughs to be had from one-to-one tracking. We got too much cathartic enjoyment out of flinging paper planes, doughnuts and coffee mugs at colleagues in adjacent cubicles. But it's in virtual reality, rather than virtual comedy, that *Job Simulator* excels. Whether you're flipping a fried egg or turning a dial, this is tactile and satisfying, if slight, entertainment.

7

Developer/publisher Owlchemy Labs
Format PSVR, Rift, Vive (version tested)
Release Out now (Vive), TBA (PSVR, Rift)



STAND AND DELIVER
Humans may no longer run the world, but robot civilisation still has its ne'er-do-wells. As a mechanic you'll respray and put new plates on a stolen car, and strip a vehicle brought in by a valet in a hurry for parts. A stickup at the convenience store sees you urged by a bandit pointing a banana at you and insisting you open the safe and hand over "that sweet cheddar". After we've peeled the banana and eaten it, we do as we're told. Inside there's no cash – just wedges of Swiss cheese.



A fair chunk of development must have been taken up with robot-joke brainstorming sessions. If this magazine doesn't tickle your fancy, perhaps a robot jazz mag, with four whole pages of wireframes, will hit the spot

Salt & Sanctuary

Well, this is just inconsiderate. Were it not so loving an homage, *Salt & Sanctuary* would be a brazen clone of the *Souls* series. It borrows shamelessly from nearly every aspect of FromSoftware's remarkable formula – except the button layout. Your light and strong attacks are mapped to face buttons. Item usage and evasive manoeuvres are performed with the shoulders and triggers. In the heat of the moment, we've attacked when we wanted to heal; we've rolled straight into an enemy when we wanted to slice their heads off. If you're going to make what amounts to a 2D cover of a *Souls* game, you might as well go the whole hog and give us the controller config our thousands of hours of *Souls*-game muscle memory expects.

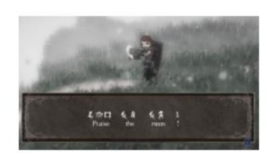
In almost every other aspect, *Salt & Sanctuary* follows the FromSoftware house style to the letter. Defeated enemies drop salt, which you use to upgrade gear and level up; die, and you lose the lot, unless you can make it back to where you fell on your next life. Sanctuaries provide the solace of candlelight, a place to level up and shop, and act as respawn and fast-travel points. Bosses hit hard and have learnable attack patterns. Loot is cossetted about the world and dropped by enemies. Messages in bottles, left by other players, offer handy advice about what's ahead in a spiralling world filled with shortcuts and secrets.

Ska Studios has a few ideas of its own, thankfully. Levelling up isn't just a matter of adding a digit to a particular stat, but awards a skill point to be spent in a sprawling skill tree. With that comes a streamlining of From's often obtuse relationship between gear and stats. Here, weapons are divided by archetypes and, within that, numbered classes. Items and gear are bought with gold, a separate currency that doesn't vanish when you die (though the cleric that revives you and takes you back to a sanctuary levies a small fee). Single-use items, meanwhile, allow you to summon blacksmiths and merchants to specific sanctuaries to save you warping back to the same base camp time and again.

Salt & Sanctuary can be brilliant, but it's held back by undersized visual design, both in UI and open play, making playing it from distance a pain. The art style itself is a bone of contention too, the cartoony character designs clashing with the bleak austerity of the world. But the game's biggest sin is familiarity. A few weeks after we chastised the latest *Souls* game for feeling too much like itself, along comes a game that takes the concept to its most logical extreme. Ultimately, the problem is a conceptual one: putting yourself alongside a uniquely brilliant series of games is a comparison that can never be too flattering.

6

Publisher/developer Ska Studios
Format PS4 (tested), Vita
Release Out now (PS4), TBA (Vita)



SOUL LEVEL ONE
Ska Studios is a husband-and-wife operation, but it wasn't always that way – James and Michelle Silva met when the latter was a tester on the former's debut game, XBLA hack-and-slasher *The Dishwasher: Dead Samurai*. These days Michelle contributes to a game's artistic direction, but James still codes, designs and soundtracks everything himself. Hidetaka Miyazaki may be the genius behind the *Souls* games, but he doesn't get his hands this dirty.



Surprise! As in the *Souls* games, stamina is your most important resource, governing attacking and blocking, though it doesn't deplete when you jump, and there's no sprint button to wear it down either

Trackmania Turbo

That the *Trackmania* series has taken so long to find its way onto console feels like a small tragedy when you see what Nadeo can do with the brief. *Trackmania Turbo* retains the fundamentals of its PC forebears, offering up 200 dizzying, predominantly point-to-point obstacle courses on which to compete for the best time possible. It's still tough, too, echoing *Trials'* school of lulling players with a gentle breaking-in period before shifting gears to something altogether more daunting. And there's a powerful track editor for you to build your own stomach-churning creations.

But the earlier games' barebones structure and ugly UI have been replaced with a user-friendly, brightly coloured treatment that channels the sunny aesthetics and solidity of '90s arcade racers. Cars aren't quite as twitchy as the first game's, exhibiting a weighty momentum but propensity to break traction that makes drifting feel like you're sliding across buttered tarmac.

Along with the sprawling championship, there's also fourplayer splitscreen racing, asynchronous online challenges against friends and strangers' times, a pass-the-controller party mode, and returning (and entirely ridiculous) simultaneous online races in which hundreds of non-corporeal drivers battle for a podium position against the clock. One mode even lets you share driving duties with a friend, if things weren't already challenging and chaotic enough.

Nadeo's selection of tracks are divided between four environments, each with their own thematic quirks and vehicle style. The International Stadium area focuses on precision and cornering skills; Dirty Valley is a bumpy offroad test of your suspension; Canyon Drift lets you get the back end out often; and Lagoon Rollercoaster indulges the series' excesses with corkscrews, loop-the-loops and wall rides.

But all this fun obscures a brutally unforgiving difficulty curve and crude unlocking structure which requires you to get to get a medal on every track in order to progress. And while the cars handle slightly more like real vehicles than remote-control toys, there's still an excess of sensitivity that often leaves less room for misjudgment than even *Trials'* most ferocious moments. As a result, it requires a level of commitment to perfecting repetition that many will find off-putting.

For those prepared to put in the hours, *Trackmania Turbo* is an exhilarating, satisfying rush that manages to distil everything that was good about the ageing PC series while making it feel fresh again, and considerably more stylish. This lightness of touch, combined with instant restarts and a *Trials*-style checkpoint system, makes for an extremely moreish racer.

8

Developer Nadeo
Publisher Ubisoft
Format PC, PS4 (tested), Xbox One
Release Out now



FOR THE HORIZON
Trackmania's worlds are colossal. While you'll spend much of your time hemmed in by barriers, it only takes hitting a small bump in the road at speed to send you sailing outside of Nadeo's low-security enclosures. After one poorly judged corner, we took the opportunity to explore and set out for the horizon. Five minutes later we were still bouncing over hills and down into canyons. Three minutes more saw us reach the end of the skybox's reach, and the void swallowed us after two more.

Despite the weightier cars, breaking traction is as simple as tapping the brakes as you turn. You'll need to start your slide well ahead of the corner, however, making *Trackmania*'s drifting feel pleasantly like *Mario Kart 8*'s





Fable II

How Albion's sophomore form represented Lionhead's finest hour

By Chris Schilling

Publisher Microsoft Game Studios **Developer** Lionhead Studios **Format** Xbox 360 **Release** 2008

Late afternoon on a balmy day in Oakfield, we fell in love. No, not with another person – though we had grown rather attached to our virtual wife and child – but with Albion itself. Something about that low-hanging sun, casting the village's quaint cottages in a sumptuous autumnal glow, together with Russell Shaw's wistful, emotive score, convinced us that this rustic idyll was a place we could really call home. Most videogame environments are places to delve into, pick clean and leave behind. Occasionally we're invited to rest, to set up a base of operations. But most games view houses as Le Corbusier famously did: as machines for living in, and nothing more. This, however, felt like a place to settle down; somewhere to put your feet up at the end of a hard day's adventuring.

Albion – more specifically, *Fable II*'s Albion – is almost certainly Lionhead Studios' greatest achievement. The original *Fable* established a pleasantly leafy, pastoral setting, but it was comparatively flat and benign. *Fable III*'s vision of an industrialised Albion, meanwhile, gave us the grime but not the greenery; a world reluctantly caught up in the middle of a revolution without being quite ready for it. The in-game history books suggest a world in almost constant tumult, but in *Fable II* we find it enjoying a rare spell of peace, the calm before a gathering storm. Not everything there is entirely green and pleasant, of course. There are plenty of Hobbes, Hollow Men and Balverines, and also moments of genuine tragedy – the haunting, mist-shrouded Wraithmarsh induces shivers rooted in sadness – but in the main there's an undeniably appealingly upbeat, convivial atmosphere. Unless you're behaving very badly, there's usually someone happy to see you. And if not, well, at least they're visibly and audibly aware of your presence.

Much has been written about the absence of most orthodox methods of punishment in *Fable II*, in particular the removal of death for player characters. Yet as convenient as it is not to return to distant checkpoints, nor to witness a boss you'd almost vanquished re-emerge with a dishearteningly full health bar, this is perhaps the least interesting way Lionhead chooses to empower you. Albion is a reactive world, one that yields to your presence in ways small and large – environments change according to the choices you make, and people change, too. In most games, you'll recognise the impact of significant decisions, but in *Fable II* this happens on a moment-to-moment basis, with the slightest shifts in your physique and stature affecting how the populace responds to you. Fate's designs may have cast you as the Chosen One, but it's a chastening moment when your behaviour on the road causes townsfolk to greet you with a cheery "Hello, Knobhead!"

Without its NPCs, Albion would still be an unusually rich and attractive world to save. With them, it's one to savour. As with so many other RPGs, they're quest-givers and allies, employers and store owners. They sell and craft weapons and armour, give you haircuts and tattoos. They can be wives and husbands, which is less common, if hardly unique. Many are there to simply add colour; again, that's nothing new. What's different is that each and every one is there for your entertainment, and you for theirs. Your interactions with them are rudimentary yet meaningful, even at their silliest. You can dance and flirt with them, threaten them, point and laugh at them, or invite them to kiss your arse. Earn sufficient renown and they might fawn over you, offering you gifts or proposing marriage – or scuttle off in fear as you approach. The point being, there's a tangible response to everything you do, no matter how minor. And, as such, their role in your story feels that bit more significant, your affection for them grows, and Albion becomes more loveable as a result.

Then again, Albion had to be loveable to support Lionhead's riskier choices. Many of these were attributed exclusively to founder and lead designer Peter Molyneux, which seems rather unfair – not only to the studio's other creatives, but the poor coders who would find themselves suddenly tasked with trying to implement Molyneux's more fanciful conceits, often revealed on a whim during interviews and at industry events. His habit of making outlandish promises, of course, had most infamously manifested in the idea of an acorn flourishing into a ▶

mighty oak over the course of the original *Fable*. Here, this was affectionately parodied – though some curmudgeons, still annoyed that Molyneux had not stayed true to his word, considered it no laughing matter.

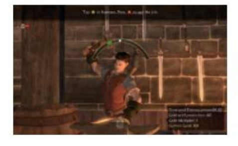
Whoever was responsible, the audaciousness of some of these ideas can only be applauded. Divisive though it may have been, the golden breadcrumb trail that guides you towards your destination is not merely a handholding device for those incapable of reading a map. Rather, it's an invitation to actively wander offroad, to follow your canine companion towards buried treasure, loot chests and other optional asides, or to ignore its barks and discover secrets by following your own nose. And once your curiosity has been sated, there's none of the frustration that comes with being lost: just step back on that snaking trail and you'll find yourself back in familiar territory in no time.

Its streamlined combat also had plenty of critics. And yet by attributing all melee, ranged and magic attacks to a button each, *Fable II* allowed you to combine the three effortlessly. With the fear of death all but eradicated, what could have been a desperate struggle for survival becomes a flashy showcase of strength, skill and will. With such a range of abilities at the tips of your fingers, Lionhead ensures you're always facing unreasonable odds. What it may lack in depth, it makes up for in spectacle, as you dance in and out of danger, pulling off grandstanding flourishes. You might raise the dead as a distraction before conjuring a shockwave that stuns all opponents within a wide radius. You'll charge attacks that knock enemies to the floor, upon which your dog will rush in to savage them. At times, its limitations are laid bare – the series of arena battles at The Crucible gets repetitive quickly – though you could argue that's partly intentional. Either way, you'll gain more experience for efficient kills, a smart way of incentivising mastery as opposed to penalising less competent players.

Melee combat felt woolly, but not ranged attacks – ah, the boom of a blunderbuss followed by the jolly rattle of collapsing bones

It takes bold risks with the story, too, most notably in the second-act sequence where your hero is held captive for a decade within The Spire, a towering conduit for all Albion's magic. As players, we're accustomed to moral conundrums that affect the narrative of a game, but these rarely carry any great significance beyond that. Here, Lionhead dares to test the player's virtue by ensuring good deeds have a palpable and lasting impact. A guard hits you and invites you to thank him; a defiant middle-finger salute to his request will trigger an electric shock that not only sees you lose substantial experience points but scars your hero. Soon after, you'll be asked to let your fellow prisoners starve, and then to kill your only ally on the inside – refuse, and you'll be zapped again and permanently marked. The experience can easily be regained later, but the disfigurements feel

FABLE II FEELS EVER MORE LIKE A WHIMSICAL ANTIDOTE TO THE GRIM PSEUDO-REALISM OF MODERN GAMES



Jobs are simple, and grow steadily trickier as you level up. Maintaining a combo is key, though you can earn rewards just by investing more time



FUTURE IMPERFECT

Fable II's ending is as brave as it is unforgettable. After a build-up befitting a truly climactic showdown, with wave upon wave of foes lying slain, you finally reach the antagonist and he's killed by a single bullet. Even better, if you let him continue his portentous monologue without interruption, Stephen Fry's rakish Reaver will do the job on your behalf, a delightful shock in keeping with the game's willingness to slyly subvert established fantasy tropes. It's a pity, though, that Lionhead undercut itself in the See The Future DLC: those who opted to sacrifice their family to save all the Spire's victims during the fateful final decision are given the option to reunite with their dog, reducing the emotional weight of the original choice.



There are crooked angles everywhere, from buildings to noses: 'no straight lines' was the art team's mantra

more invasive. For players who'd maintained a flawless complexion by surviving multiple battles without falling, this may have been too high a price to pay. We, on the other hand, wore our scars as a badge of honour: an immutable reminder of our desire to do good in this judgemental world.

In recent years, the notion of shaping a world with your character's words and actions has become commonplace, but it's still rare to find examples where the reverse is also true. Albion, however, changes you – it can leave you bloated or gaunt, blemished or glowing, reviled or deified. Your fate and that of Albion is enmeshed, such that it's hard to think of another game where you feel such a profound sense of connection with the world. Perhaps, after all, you are Albion's acorn, your roots embedded deep beneath its surface just as your heroic actions see your legend grow and grow.

Not that everyone saw the appeal. *Fable II* has a strong and coherent vision of what a contemporary RPG can be, but as fully realised as Albion is, you can see the joins where its disparate pieces have been pushed together. It isn't a truly open world in that it is split into manageable chunks, usually with no more than one or two routes to any given destination. Arriving around the same time as the sprawl of *Fallout 3*'s Capital Wasteland, to some *Fable II* felt quaint and restrictive, while for those seeking a challenge it was a little too eager to please. Sluggish menus, the odd glitch, and loading times that made a mockery of the idea of fast travel were sufficient for some to write it off as another Lionhead project that had shot for the moon and fallen short.

Yet as time goes by, *Fable II* feels ever more like a gaming anomaly – a whimsical, escapist antidote to the grim pseudo-realism of many modern adventure games. A hero, it suggests, shouldn't simply stoically overcome the trials fate puts in their path, but should be afforded the opportunity to kick back, get drunk, punt chickens up the arse, and burp so long and loud that they end up voiding their stomach on Bowerstone's cobbles.

In light of Microsoft's decision to shut down Lionhead, it's looking depressingly likely that we'll never get to see Albion again, in any era. But a small corner of that world lives on in our hearts: that sleepy, sun-kissed haven where we chopped wood, kept bar and flipped the bird at our outraged neighbours. The place we fell in love. ■

Levelling up lets you invest experience in Strength, Skill or Will. Each option is given a vocal explanation by Zoe Wanamaker's seer, Teresa





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SPECIAL 300TH ANNIVERSARY ISSUE



JAMES LEACH

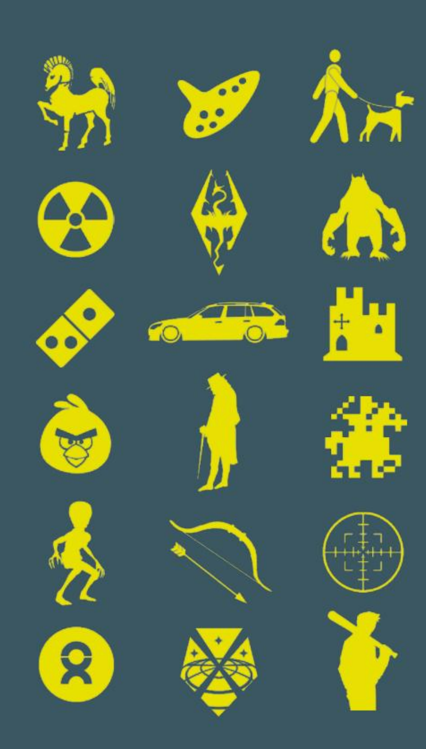
Postcards From The Clipping Plane

Conveniently ignoring the serious side of videogame development

I've just realised I carry around a permanent, if low-level sense of annoyance that games are still not universally perceived as part of our culture. Of course, you know that, and are mature enough to not be irritated by it, but have you ever considered why, after 30 years of astonishing game evolution, there is still an overpowering them-and-us element? I just have, and I reckon it's partly this: there's the age thing. Few people over 55 regularly play anything more than the odd phone app. That's OK. I don't read Victorian fiction. But I know something about it in a way that if you don't play games, you can't. If someone calls something Dickensian, I have a great idea of what they mean, even though, possibly to my shame, I've read very little Dickens. But describe something in the real world as *Skyrim*-esque and unless you know *Skyrim* well, you haven't got a clue. I mean, it really is shameful not to know something about Dickens, so we all sort of do. We'd be looked down on if we didn't. But no one pities your shockingly incomplete education if you don't know *Ocarina Of Time* and are therefore unable to use it as a fitting metaphor. Yep, games are still just too niche to be part of our shared existence, and I think it'd be lovely if, over time, that ceased to be the case.

I recently received an email from a game site, posing some interview-style questions. They asked me which games had actually taught me something about the world. I was rather down on this idea because I've always subscribed to the notion that if you stay in and play games, you learn precisely nothing about life. So I told them to bugger off.

But since then I've had a change of heart. Games might not be part of the mainstream. They might not be Charles Dickens' Origin Of Species or whatever, but there is a wealth of wisdom in them. We can all learn and grow as we play. For example, during the years we spent developing *Black & White*, it's fair to say that as a company of about 40 employees, we were able to cast aside the narrow-minded concepts of good and evil.



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Instead we lived by the code of cause and effect. And revenge. It was a liberating time, and, thanks to the entirely antisocial hours we were working, the only people who truly suffered were the Domino's delivery guys.

Just playing games, as opposed to writing them, is also a mind-expanding experience. *Civilization* alone has taught me that it's OK to use nuclear weaponry on your neighbours, at least once, simply to see what would happen. And, staying with the idea of armed conflict, it was an eye-opener to realise that if you fire enough arrows at a castle, it will eventually vanish into rubble. This flash of inspiration explains why Britain, which must have been covered in millions of castles during the middle ages, now only has a few dozen. *Age Of Empires* has made me an expert in history, and I'm grateful and newly enlightened.

Furthermore, I've learned everything I need to about productivity from the *XCOM* games. It's a life-changer when you twig that you should never work hard: save half your energy every turn, or what I call every day of your life, in case some alien comes round a corner unexpectedly. You need the reserves to react and kill them. Obviously in the real world there won't be aliens. I'm referring to clients, your colleagues, and of course the police.

And what about the fog of war? With today's televisions and the web, it's easy to think we know what's going on in the next settlement. Do we, though? Or are we simply seeing a snapshot in time of what it was like when we were last there? I recently went to Warminster and my notion of the place is that it's a quiet Wiltshire town with a largely empty army barracks. That, though, is what it was like at Christmas. I now devote a day a week to climbing a hill nearby and viewing it through a sniper scope. It's astonishing how it changes in between these observations. Every time I refresh my view this way, there are more 'charity' shops there, and the army is now building an ominous presence. Also, the hill I climb, sniper rifle slung on my back, was once filled with dog walkers. Now it's deserted. I sense a rolling metal storm coming my way.

Yes, games can teach us better ways to be. We should embrace them and weave them into the souls of the population. If you're still not convinced, play *GTA* all day, then drive your car in the real world. The people you won't crash into will also be driving on the right-hand side of the road. These people have also been playing *GTA* all day. Stop, drag them from their vehicles, and make them your friends at gunpoint. Only this way will we spread the word, one street at a time.

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